Algebra I Lesson \#6 Unit 10 Class Worksheet \#6 For Worksheets \#10-\#12

## Dividing Monomials

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There is a well known relationship between multiplication and division.

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3 \cdot 4=12 \quad 12 \div 4=3
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3 \cdot 4=12 \longrightarrow 12 \div 4=3
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3 \cdot 4=12 \square 12 \div 4=3
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Consider powers of $\mathbf{x}$.

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\mathbf{x}^{2} \cdot \mathbf{x}^{5}=\mathbf{x}^{7}
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& 7
\end{aligned} x^{2}=x^{5}=\left[\begin{array}{l}
\end{array}\right.
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& x^{2} \cdot x^{5}=x^{7} \quad x^{7} \div x^{5}=x^{2} \\
& x^{7} \div x^{2}=x^{5}
\end{aligned}
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## Rule:

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Rule: $\mathbf{x}^{\mathbf{a}} \div \mathbf{x}^{\mathbf{b}}=$

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\text { Rule: } x^{a} \div x^{b}=x^{a-b}
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There is a well known relationship between multiplication and division. Consider this example.

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Consider powers of $\mathbf{x}$.

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x^{2} \cdot x^{5}=x^{7} \quad x^{7} \div x^{5}=x^{2}, \quad x^{7} \div x^{2}=x^{5}
$$

$$
\text { Rule: } x^{a} \div x^{b}=x^{a-b}
$$

Clearly, x can not equal 0 since division by 0 is undefined.

## Dividing Monomials

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Rule: If $x \neq 0$, then $x^{a} \div x^{b}=x^{a-b}$

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Rule: If }x\not=0\mathrm{ , then }\mp@subsup{x}{}{a}\div\mp@subsup{x}{}{b}=\mp@subsup{x}{}{a-b
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What if $\mathbf{a}=\mathbf{b}$ ?

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\text { Rule: If } x \neq 0 \text {, then } x^{a} \div x^{b}=x^{a-b}
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What if $\mathbf{a}=\mathbf{b}$ ? Consider this example.

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x^{3} \div x^{3}=
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What if $\mathbf{a}=\mathbf{b}$ ? Consider this example.

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If you apply the rule, you get $\mathrm{x}^{\mathbf{0}}$.

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## Rule: If $x \neq 0$, then $x^{a} \div x^{b}=x^{a-b}$

What if $\mathbf{a}=\mathbf{b}$ ? Consider this example.

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If you apply the rule, you get $x^{0}$.
You also know that any number divided by itself is 1.

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If you apply the rule, you get $\mathbf{x}^{\mathbf{0}}$.
You also know that any number divided by itself is 1.
(The exception is $0 \div 0$.)
$\uparrow \uparrow \uparrow$
This is undefined.

## Dividing Monomials

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## Rule: If $x \neq 0$, then $x^{a} \div x^{b}=x^{a-b}$

What if $\mathbf{a}=\mathbf{b}$ ? Consider this example.

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x^{3} \div x^{3}=
$$

If you apply the rule, you get $\mathbf{x}^{\mathbf{0}}$.
You also know that any number divided by itself is 1. (The exception is $0 \div 0$.)

Therefore, if $x \neq 0$, then $x^{0}=1$.

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Consider this multiplication problem.

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$\left(4 x^{3}\right)\left(5 x^{2}\right)=$

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Notice that you
multiply the coefficients and add the exponents.

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Notice that you
divide the coefficients and subtract the exponents.

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multiply the coefficients and add the exponents.
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Notice that you
divide the coefficients and subtract the exponents.
We assume that $\mathrm{x} \neq 0$, since division by 0 is undefined.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.

1. $\left(9 x^{4}\right) \div\left(3 x^{3}\right)=$
2. $\left(-28 x^{6}\right) \div\left(7 x^{2}\right)=$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.

1. $\left(9 x^{4}\right) \div\left(3 x^{3}\right)=$
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Perform the indicated operations. Express your answers in simplest form.

1. $\left(9 x^{4}\right) \div\left(3 x^{3}\right)=$
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When you are dividing monomials, divide the coefficients and subtract the exponents.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.

1. $\left(9 x^{4}\right) \div\left(3 \mathbf{x}^{3}\right)=\mathbf{3}$
2. $\left(-28 x^{6}\right) \div\left(7 x^{2}\right)=$ $\qquad$

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Perform the indicated operations. Express your answers in simplest form.

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1. $\left(9 x^{4}\right) \div\left(3 x^{3}\right)=\quad 3 x$
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When you are dividing monomials, divide the coefficients and subtract the exponents.

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You have learned that, in problems like this, you multiply each term of the polynomial by the monomial.

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Consider this multiplication problem.

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3 x^{2}\left(4 x^{2}-3 x+6\right)=12 x^{4}-9 x^{3}+18 x^{2}
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Here is a related division problem.

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\left(12 x^{4}-9 x^{3}+18 x^{2}\right) \div 3 x^{2}=4 x^{2}
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When you divide a polynomial by a monomial, you divide each term of the polynomial by the monomial.

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When you divide a polynomial by a monomial, you divide each term of the polynomial by the monomial.

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\left(12 x^{4}-9 x^{3}+18 x^{2}\right) \div 3 x^{2}=4 x^{2}-3 x+6 x^{0}
$$

Remember, if $\mathbf{x} \neq \mathbf{0}$, then $\mathbf{x}^{\mathbf{0}}=\mathbf{1}$.
When you divide a polynomial by a monomial, you divide each term of the polynomial by the monomial.

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\left(12 x^{4}-9 x^{3}+18 x^{2}\right) \div 3 x^{2}=4 x^{2}-3 x+6 \cdot 1
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## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
3. $\left(15 x^{3}-10 x^{2}+25 x\right) \div(5 x)=$ $\qquad$
4. $\left(54 x^{4}+36 x^{3}-27 x^{2}\right) \div\left(9 x^{2}\right)=$

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When you divide a polynomial by a monomial, you divide each term of the polynomial by the monomial.

When you are dividing monomials, divide the coefficients and subtract the exponents.

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3. $\left(15 x^{3}-10 x^{2}+25 x\right) \div\left(5 x^{1}\right)=3 x^{2}$

4. $\left(54 x^{4}+36 x^{3}-27 x^{2}\right) \div\left(9 x^{2}\right)=$ $\qquad$

When you divide a polynomial by a monomial, you divide each term of the polynomial by the monomial.

When you are dividing monomials, divide the coefficients and subtract the exponents.

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Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

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6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$

$$
2 x + 3 \longdiv { 2 x ^ { 3 } + 1 3 x ^ { 2 } + 2 1 x + 9 }
$$

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Step1: divide:

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Divide the first term of the dividend

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Step1: divide:


Divide the first term of the dividend by the first term of the divisor.

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Step1: divide: $\mathbf{2 x}^{\mathbf{3}}$


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\cline { 2 - 3 } & 2 x+3 x^{3}+13 x^{2}+21 x+9
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2 x^{3}+13 x^{2}+21 x+9
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Step2:

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Multiply the answer you got in step 1 by the divisor.

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$$
\begin{gathered}
\frac{x^{2}}{2 x+3} \begin{array}{|c}
2 x^{3}+13 x^{2}+21 x+9
\end{array}
\end{gathered}
$$

Step1: divide: $\quad \mathbf{2 x} \mathbf{~} \mathbf{~} \mathbf{2 x}=\mathbf{x}^{\mathbf{2}}$
Step2: multiply: $\mathbf{x}^{\mathbf{2}} \mathbf{( 2 x + 3 )}$

Multiply the answer you got in step 1 by the divisor.

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

$$
\begin{gathered}
\frac{x^{2}}{2 x+3} \begin{array}{|c}
2 x^{3}+13 x^{2}+21 x+9
\end{array}
\end{gathered}
$$

Step1: divide: $\quad \mathbf{2 x} \mathbf{~} \mathbf{~} \mathbf{2 x}=\mathbf{x}^{\mathbf{2}}$
Step2: multiply: $\mathbf{x}^{\mathbf{2}}(2 \mathrm{x}+3)=\mathbf{2} \mathbf{x}^{\mathbf{3}}$

Multiply the answer you got in step 1 by the divisor.

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

$$
\begin{gathered}
\frac{x^{2}}{2 x+3} \begin{array}{|c}
2 x^{3}+13 x^{2}+21 x+9
\end{array}
\end{gathered}
$$

Step1: divide: $\quad \mathbf{2 x} \mathbf{} \mathbf{~} \mathbf{2 x}=\mathbf{x}^{\mathbf{2}}$
Step2: multiply: $\mathbf{x}^{2}(2 x+3)=2 x^{3}+3 x^{2}$

Multiply the answer you got in step 1 by the divisor.

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

\[

\]

Step1: divide: $\quad \mathbf{2 x} \mathbf{~} \mathbf{~} \mathbf{2 x}=\mathbf{x}^{\mathbf{2}}$
Step2: multiply: $\mathrm{x}^{2}(2 x+3)=2 \mathrm{x}^{3}+3 \mathrm{x}^{2}$

Multiply the answer you got in step 1 by the divisor.

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

$$
\begin{array}{c|c} 
& x^{2} \\
\cline { 2 - 3 } & \frac{2 x^{3}+13 x^{2}+21 x+9}{2 x^{3}+3 x^{2}}
\end{array}
$$

Step1: divide: $\quad \mathbf{2 x} \mathbf{} \mathbf{~} \mathbf{2 x}=\mathbf{x}^{\mathbf{2}}$
Step2: multiply: $\mathbf{x}^{\mathbf{2}}(\mathbf{2 x}+\mathbf{3})=\mathbf{2} \mathbf{x}^{\mathbf{3}}+\mathbf{3} \mathbf{x}^{\mathbf{2}}$

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$

$$
\begin{array}{c|c} 
& \frac{x^{2}}{} \begin{array}{l}
2 x+3 \\
\cline { 2 - 3 } \\
\hline 2 x^{3}+13 x^{2}+21 x+9 \\
2 x^{3}+3 x^{2}
\end{array}
\end{array}
$$

Step1: divide: $\quad \mathbf{2 x} \mathbf{~} \mathbf{~} \mathbf{2 x}=\mathbf{x}^{\mathbf{2}}$
Step2: multiply: $\mathbf{x}^{\mathbf{2}}(\mathbf{2 x}+\mathbf{3})=\mathbf{2} \mathbf{x}^{\mathbf{3}}+\mathbf{3} \mathbf{x}^{\mathbf{2}}$
Step 3:

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

$$
\begin{array}{c|c} 
& x^{2} \\
\cline { 2 - 3 } & \frac{2 x^{3}+13 x^{2}+21 x+9}{2 x^{3}+3 x^{2}}
\end{array}
$$

Step1: divide: $\quad \mathbf{2 x} \mathbf{~} \mathbf{~} \mathbf{2 x}=\mathbf{x}^{\mathbf{2}}$
Step2: multiply: $\mathbf{x}^{\mathbf{2}}(\mathbf{2 x}+\mathbf{3})=\mathbf{2} \mathbf{x}^{\mathbf{3}}+\mathbf{3} \mathbf{x}^{\mathbf{2}}$
Step 3: subtract

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

$$
\begin{array}{c|c} 
& x^{2} \\
\cline { 2 - 3 } & \frac{2 x^{3}+13 x^{2}+21 x+9}{2 x^{3}+3 x^{2}}
\end{array}
$$

Step1: divide: $\quad \mathbf{2 x} \mathbf{~} \mathbf{~} \mathbf{2 x}=\mathbf{x}^{\mathbf{2}}$
Step2: multiply: $\mathbf{x}^{\mathbf{2}}(\mathbf{2 x}+\mathbf{3})=\mathbf{2} \mathbf{x}^{\mathbf{3}}+\mathbf{3} \mathbf{x}^{\mathbf{2}}$
Step 3: subtract

Subtract the answer from step 2

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

$$
\begin{array}{c|c} 
& x^{2} \\
\cline { 2 - 3 } & \frac{2 x^{3}+13 x^{2}+21 x+9}{2 x^{3}+3 x^{2}}
\end{array}
$$

Step1: divide: $\quad \mathbf{2 x} \mathbf{~} \mathbf{~} \mathbf{2 x}=\mathbf{x}^{\mathbf{2}}$
Step2: multiply: $\mathbf{x}^{\mathbf{2}}(\mathbf{2 x}+\mathbf{3})=\mathbf{2} \mathbf{x}^{\mathbf{3}}+\mathbf{3} \mathbf{x}^{\mathbf{2}}$
Step 3: subtract

Subtract the answer from step 2

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

\[

\]

Step1: divide: $\quad \mathbf{2 x} \mathbf{~} \mathbf{~} \mathbf{2 x}=\mathbf{x}^{\mathbf{2}}$
Step2: multiply: $\mathbf{x}^{\mathbf{2}}(\mathbf{2 x}+\mathbf{3})=\mathbf{2} \mathbf{x}^{\mathbf{3}}+\mathbf{3} \mathbf{x}^{\mathbf{2}}$
Step 3: subtract

Subtract the answer from step 2 from the original dividend.

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

Step1: divide: $\quad \mathbf{2 x} \mathbf{~} \mathbf{~} \mathbf{2 x}=\mathbf{x}^{\mathbf{2}}$

$$
\begin{array}{c|c} 
& \frac{x^{2}}{2 x+3} \\
\cline { 2 - 3 } & \begin{array}{l}
2 x^{3}+13 x^{2}+21 x+9 \\
2 x^{3}+3 x^{2}
\end{array} \\
\hline
\end{array}
$$

Step2: multiply: $\mathbf{x}^{\mathbf{2}}(\mathbf{2 x}+\mathbf{3})=\mathbf{2} \mathbf{x}^{\mathbf{3}}+\mathbf{3} \mathbf{x}^{\mathbf{2}}$
Step 3: subtract

Subtract the answer from step 2 from the original dividend.

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

Step1: divide: $\quad \mathbf{2 x} \mathbf{~} \mathbf{~} \mathbf{2 x}=\mathbf{x}^{\mathbf{2}}$

\[

\]

Step2: multiply: $\mathbf{x}^{\mathbf{2}}(\mathbf{2 x}+\mathbf{3})=\mathbf{2} \mathbf{x}^{\mathbf{3}}+\mathbf{3} \mathbf{x}^{\mathbf{2}}$
Step 3: subtract

Subtract the answer from step 2 from the original dividend.

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

Step1: divide: $\quad \mathbf{2 x} \mathbf{~} \mathbf{~} \mathbf{2 x}=\mathbf{x}^{\mathbf{2}}$

$$
\begin{array}{c|c} 
& x^{2} \\
\cline { 2 - 3 } & \begin{array}{l}
2 x^{3}+13 x^{2}+21 x+9 \\
2 x^{3}+3 x^{2}
\end{array} \\
\hline
\end{array}
$$

Step2: multiply: $\left.\quad \mathbf{x}^{\mathbf{2}} \mathbf{( 2 x}+\mathbf{3}\right)=\mathbf{2} \mathbf{x}^{\mathbf{3}}+\mathbf{3} \mathbf{x}^{\mathbf{2}}$
Step 3: subtract

Subtract the answer from step 2 from the original dividend.

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

Step1: divide: $\quad \mathbf{2 x} \mathbf{~} \mathbf{~} \mathbf{2 x}=\mathbf{x}^{\mathbf{2}}$

$$
\begin{aligned}
& x^{2} \\
& 2 x+3 \quad 2 x^{3}+13 x^{2}+21 x+9 \\
& 2 x^{3}+3 x^{2} \\
& 10 x^{2}+21 x
\end{aligned}
$$

Step2: multiply: $\mathbf{x}^{\mathbf{2}}(\mathbf{2 x}+\mathbf{3})=\mathbf{2} \mathbf{x}^{\mathbf{3}}+\mathbf{3} \mathbf{x}^{\mathbf{2}}$
Step 3: subtract

Subtract the answer from step 2 from the original dividend.

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

Step1: divide: $\quad \mathbf{2 x} \mathbf{~} \mathbf{~} \mathbf{2 x}=\mathbf{x}^{\mathbf{2}}$

$$
\begin{array}{c|c} 
& \frac{x^{2}}{} \begin{array}{c}
\frac{2 x^{3}+13 x^{2}+21 x+9}{}+3 x^{3}+3 x^{2}
\end{array} \\
\frac{10 x^{2}+21 x+9}{}
\end{array}
$$

Step2: multiply: $\mathbf{x}^{\mathbf{2}}(\mathbf{2 x}+\mathbf{3})=\mathbf{2} \mathbf{x}^{\mathbf{3}}+\mathbf{3} \mathbf{x}^{\mathbf{2}}$
Step 3: subtract

Subtract the answer from step 2 from the original dividend.

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

Step1: divide: $\quad \mathbf{2 x} \mathbf{~} \mathbf{~} \mathbf{2 x}=\mathbf{x}^{\mathbf{2}}$

$$
\text { Step2: multiply: } \quad x^{2}(2 x+3)=2 x^{3}+3 x^{2}
$$

Step 3: subtract

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

$$
\begin{aligned}
& \mathrm{x}^{2} \\
& 2 x+3 \quad 2 x^{3}+13 x^{2}+21 x+9 \\
& 2 \mathrm{x}^{3}+3 \mathrm{x}^{2} \\
& 10 x^{2}+21 x+9
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

$$
\begin{aligned}
& \mathbf{x}^{2} \\
& 2 x+3 \quad 2 x^{3}+13 x^{2}+21 x+9 \\
& 2 \mathrm{x}^{3}+3 \mathrm{x}^{2} \\
& 10 x^{2}+21 x+9
\end{aligned}
$$

Step1: divide:
Step2: multiply:
Step 3: subtract

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

Step1: divide:

$$
\begin{aligned}
& x^{2} \\
& 2 x+3 \quad 2 x^{3}+13 x^{2}+21 x+9 \\
& 2 \mathrm{x}^{3}+3 \mathrm{x}^{2} \\
& 10 x^{2}+21 x+9
\end{aligned}
$$

Step2: multiply:
Step 3: subtract

## Repeat the process.

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

Step1: divide:

$$
\begin{array}{c|c} 
& \frac{x^{2}}{} \mathbf{2 x}+3 \\
\begin{array}{ll}
2 x^{3}+13 x^{2}+21 x+9 \\
2 x^{3}+3 x^{2}
\end{array} \\
& 10 x^{2}+21 x+9
\end{array}
$$

Step2: multiply:
Step 3: subtract

## Repeat the process.

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

Step1: divide: 10x ${ }^{2}$

$$
\begin{aligned}
& \mathbf{x}^{2} \\
& \begin{array}{c|c}
2 x+3 & \begin{array}{l}
2 x^{3}+13 x^{2}+21 x+9 \\
2 x^{3}+3 x^{2}
\end{array} \\
\hline
\end{array}
\end{aligned}
$$

Step2: multiply:
Step 3: subtract

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

Step1: divide: $10 \mathbf{x}^{\mathbf{2}} \div \mathbf{2 x}$

$$
\begin{aligned}
& \mathbf{x}^{2} \\
& 2 x+3 \quad 2 x^{3}+13 x^{2}+21 x+9 \\
& 2 \mathrm{x}^{3}+3 \mathrm{x}^{2} \\
& 10 x^{2}+21 x+9
\end{aligned}
$$

Step2: multiply:
Step 3: subtract

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

Step1: divide: $10 \mathrm{x}^{\mathbf{2}} \div \mathbf{2 x}=\mathbf{5 x}$

$$
\begin{array}{c|c} 
& \frac{x^{2}}{} \begin{array}{l}
2 x+3 \\
\begin{array}{l}
2 x^{3}+13 x^{2}+21 x+9 \\
2 x^{3}+3 x^{2}
\end{array} \\
\\
\\
10 x^{2}+21 x+9
\end{array}
\end{array}
$$

Step2: multiply:
Step 3: subtract

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

Step1: divide: $10 \mathbf{x}^{\mathbf{2}} \div \mathbf{2 x}=\mathbf{5 x}$

$$
\begin{array}{c|c} 
& x^{2}+5 x \\
2 x+3 & \frac{2 x^{3}+13 x^{2}+21 x+9}{2 x^{3}+3 x^{2}} \\
& 10 x^{2}+21 x+9
\end{array}
$$

Step2: multiply:
Step 3: subtract

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

Step1: divide: $\quad \mathbf{1 0} \mathbf{x}^{\mathbf{2}} \div \mathbf{2 x}=\mathbf{5 x}$

$$
\begin{array}{c|c} 
& x^{2}+5 x \\
2 x+3 & \begin{array}{l}
2 x^{3}+13 x^{2}+21 x+9 \\
2 x^{3}+3 x^{2}
\end{array} \\
+21 x+9
\end{array}
$$

Step2: multiply:
Step 3: subtract

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

Step1: divide: $\quad \mathbf{1 0} \mathbf{x}^{\mathbf{2}} \div \mathbf{2 x}=\mathbf{5 x}$

$$
\begin{array}{c|c} 
& x^{2}+5 x \\
2 x+3 & \begin{array}{l}
2 x^{3}+13 x^{2}+21 x+9 \\
2 x^{3}+3 x^{2}
\end{array} \\
+21 x+9
\end{array}
$$

Step2: multiply:
Step 3: subtract

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

Step1: divide: $\mathbf{1 0 x}^{\mathbf{2}} \div \mathbf{2 x}=\mathbf{5 x}$

$$
\begin{aligned}
& x^{2}+5 x \\
& 2 x+3 \quad 2 x^{3}+13 x^{2}+21 x+9 \\
& 2 \mathrm{x}^{3}+3 \mathrm{x}^{2} \\
& 10 x^{2}+21 x+9
\end{aligned}
$$

Step2: multiply: 5x
Step 3: subtract

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

Step1: divide: $\mathbf{1 0 x}^{\mathbf{2}} \div \mathbf{2 x}=\mathbf{5 x}$

$$
\begin{aligned}
& x^{2}+5 x \\
& 2 \mathrm{x}+3 \quad 2 \mathrm{x}^{3}+13 \mathrm{x}^{2}+21 \mathrm{x}+9 \\
& 2 x^{3}+3 x^{2} \\
& 10 x^{2}+21 x+9
\end{aligned}
$$

Step2: multiply: 5x $(2 x+3)$
Step 3: subtract

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

Step1: divide: $10 \mathbf{x}^{\mathbf{2}} \div \mathbf{2 x}=\mathbf{5 x}$

$$
\begin{array}{l|l} 
& \frac{x^{2}+5 x}{} \\
\cline { 2 - 3 }+3 x^{3}+13 x^{2}+21 x+9 \\
\frac{2 x^{3}+3 x^{2}}{} & 10 x^{2}+21 x+9
\end{array}
$$

Step2: multiply: $5 x(2 x+3)=10 x^{2}$
Step 3: subtract

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

$$
\begin{array}{c|c} 
& \frac{x^{2}+5 x}{} \\
\cline { 2 - 3 }+3 x^{3}+13 x^{2}+21 x+9 \\
\frac{2 x^{3}+3 x^{2}}{10 x^{2}+21 x+9}
\end{array}
$$

Step2: multiply: $5 \mathrm{x}(2 \mathrm{x}+3)=10 \mathrm{x}^{2}+\mathbf{1 5 x}$
Step 3: subtract

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

$$
\begin{aligned}
& x^{2}+5 x \\
& 2 \mathrm{x}+3 \quad 2 \mathrm{x}^{3}+13 \mathrm{x}^{2}+21 \mathrm{x}+9 \\
& 2 \mathrm{x}^{3}+3 \mathrm{x}^{2} \\
& 10 x^{2}+21 x+9
\end{aligned}
$$

Step2: multiply: $5 \mathrm{x}(2 \mathrm{x}+3)=10 \mathrm{x}^{2}+15 \mathrm{x} \quad 10 \mathrm{x}^{2}+15 \mathrm{x}$
Step 3: subtract

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

Step1: divide: $\mathbf{1 0 x}^{\mathbf{2}} \div \mathbf{2 x}=\mathbf{5 x}$

$$
\begin{gathered}
\\
2 x+3 \begin{array}{l}
x^{2}+5 x \\
\begin{array}{l}
2 x^{3}+13 x^{2}+21 x+9 \\
2 x^{3}+3 x^{2}
\end{array} \\
\frac{10 x^{2}+21 x}{}+9
\end{array}
\end{gathered}
$$

Step2: multiply: $\mathbf{5 x}(\mathbf{2 x}+\mathbf{3})=10 \mathbf{x}^{\mathbf{2}}+\mathbf{1 5 x} \quad \mathbf{1 0} \mathrm{x}^{2}+\mathbf{1 5 x}$
Step 3: subtract

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

Step1: divide: $\mathbf{1 0 x}^{\mathbf{2}} \div \mathbf{2 x}=\mathbf{5 x}$

$$
\begin{gathered}
\\
2 x+3 \begin{array}{l}
x^{2}+5 x \\
\begin{array}{l}
2 x^{3}+13 x^{2}+21 x+9 \\
2 x^{3}+3 x^{2}
\end{array} \\
\frac{10 x^{2}+21 x}{}+9
\end{array}
\end{gathered}
$$

Step2: multiply: $\mathbf{5 x}(\mathbf{2 x}+\mathbf{3})=10 \mathbf{x}^{\mathbf{2}}+\mathbf{1 5 x} \quad 10 \mathrm{x}^{2}+\mathbf{1 5 x}$
Step 3: subtract

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

Step1: divide: $10 \mathbf{x}^{\mathbf{2}} \div \mathbf{2 x}=\mathbf{5 x}$

$$
\begin{gathered}
\\
2 x+3 \begin{array}{l}
x^{2}+5 x \\
\frac{2 x^{3}+13 x^{2}+21 x+9}{2 x^{3}+3 x^{2}} \\
\frac{10 x^{2}+21 x}{}+9
\end{array} \\
\hline
\end{gathered}
$$

Step2: multiply: $\mathbf{5 x}(\mathbf{2 x}+\mathbf{3})=\mathbf{1 0} \mathrm{x}^{\mathbf{2}}+\mathbf{1 5 x} \quad \mathbf{1 0} \mathrm{x}^{2}+\mathbf{1 5 x}$
Step 3: subtract

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

Step1: divide: $\mathbf{1 0 x}^{\mathbf{2}} \div \mathbf{2 x}=\mathbf{5 x}$

$$
\begin{gathered}
\\
2 x+3 \begin{array}{l}
x^{2}+5 x \\
\begin{array}{l}
2 x^{3}+13 x^{2}+21 x+9 \\
2 x^{3}+3 x^{2}
\end{array} \\
\frac{10 x^{2}+21 x}{}+9
\end{array} \\
\hline
\end{gathered}
$$

Step2: multiply: $\mathbf{5 x}(\mathbf{2 x}+\mathbf{3})=10 \mathbf{x}^{2}+\mathbf{1 5 x} \quad 10 \mathrm{x}^{2}+\mathbf{1 5 x}$
Step 3: subtract

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

Step1: divide: $\mathbf{1 0 x}^{\mathbf{2}} \div \mathbf{2 x}=\mathbf{5 x}$

$$
\begin{aligned}
& \\
& 2 \mathbf{x}^{3}+3 \mathrm{x}^{2} \\
& 10 x^{2}+21 x+9 \\
& \text { 6x }
\end{aligned}
$$

Step2: multiply: $\mathbf{5 x}(\mathbf{2 x}+\mathbf{3})=\mathbf{1 0} \mathrm{x}^{\mathbf{2}}+\mathbf{1 5 x} \quad \mathbf{1 0} \mathrm{x}^{2}+\mathbf{1 5 x}$
Step 3: subtract

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

Step1: divide: $\mathbf{1 0 x}^{\mathbf{2}} \div \mathbf{2 x}=\mathbf{5 x}$

\[

\]

Step2: multiply: $5 \mathbf{x}(\mathbf{2 x}+\mathbf{3})=10 \mathrm{x}^{2}+\mathbf{1 5 x} \quad 10 \mathrm{x}^{2}+\mathbf{1 5 x}$
Step 3: subtract

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

Step1: divide: $\quad \mathbf{1 0} \mathbf{x}^{\mathbf{2}} \div \mathbf{2 x}=\mathbf{5 x}$

\[

\]

Step2: multiply: $\mathbf{5 x}(\mathbf{2 x}+\mathbf{3})=\mathbf{1 0} \mathbf{x}^{\mathbf{2}}+\mathbf{1 5 x} \quad \mathbf{1 0} \mathrm{x}^{2}+\mathbf{1 5 x}$
Step 3: subtract

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

Step1: divide:

$$
\begin{array}{c|c} 
& x^{2}+5 x \\
\cline { 2 - 3 }+3 & \begin{array}{l}
2 x^{3}+13 x^{2}+21 x+9 \\
2 x^{3}+3 x^{2}
\end{array} \\
& \frac{10 x^{2}+21 x+9}{10 x^{2}+15 x} \\
& \frac{1 x+9}{}
\end{array}
$$

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

Step1: divide:

$$
\begin{array}{c|c} 
& x^{2}+5 x \\
\cline { 1 - 3 } & \begin{array}{l}
2 x^{3}+13 x^{2}+21 x+9 \\
2 x^{3}+3 x^{2}
\end{array} \\
\cline { 2 - 4 } & \frac{10 x^{2}+21 x+9}{10 x^{2}+15 x} \\
& \frac{6 x+9}{}
\end{array}
$$

Repeat the process.

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

Step1: divide:

\[

\]

Repeat the process.

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$

Step1: divide: 6x

$$
\begin{array}{c|c} 
& x^{2}+5 x \\
\cline { 2 - 3 } \mathbf{2 x}+3 & \begin{array}{l}
2 x^{3}+13 x^{2}+21 x+9 \\
2 x^{3}+3 x^{2}
\end{array} \\
& \frac{10 x^{2}+21 x+9}{10 x^{2}+15 x} \\
& \frac{1 x+9}{}
\end{array}
$$

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

Step1: divide: $\mathbf{6 x} \div \mathbf{2 x}$

$$
\begin{array}{c|c} 
& x^{2}+5 x \\
\hline 2 x+3 & \begin{array}{l}
2 x^{3}+13 x^{2}+21 x+9 \\
2 x^{3}+3 x^{2}
\end{array} \\
& \frac{10 x^{2}+21 x+9}{6 x+9} \\
& \frac{10 x^{2}+15 x}{6 x}
\end{array}
$$

Step2: multiply:
Step 3: subtract

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

Step1: divide: $\mathbf{6 x} \div \mathbf{2 x}=\mathbf{3}$

$$
\begin{array}{c|c} 
& x^{2}+5 x \\
\hline 2 x+3 & \begin{array}{l}
2 x^{3}+13 x^{2}+21 x+9 \\
2 x^{3}+3 x^{2}
\end{array} \\
& \frac{10 x^{2}+21 x+9}{6 x+9} \\
\frac{10 x^{2}+15 x}{6 x}
\end{array}
$$

Step2: multiply:
Step 3: subtract

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

Step1: divide: $\mathbf{6 x} \div \mathbf{2 x}=\mathbf{3}$

$$
\begin{aligned}
& \begin{array}{c}
c \\
2 x+3 \\
\begin{array}{c}
x^{2}+5 x+3 \\
2 x^{3}+13 x^{2}+21 x+9 \\
2 x^{3}+3 x^{2}
\end{array} \\
\hline \frac{10 x^{2}+21 x+9}{10 x^{2}+15 x} \\
6 x+9
\end{array} \\
& \begin{array}{c}
c \\
2 x+3 \\
\begin{array}{c}
x^{2}+5 x+3 \\
2 x^{3}+13 x^{2}+21 x+9 \\
2 x^{3}+3 x^{2}
\end{array} \\
\hline \frac{10 x^{2}+21 x+9}{10 x^{2}+15 x} \\
6 x+9
\end{array} \\
& \begin{array}{c}
c \\
2 x+3 \\
\begin{array}{c}
x^{2}+5 x+3 \\
2 x^{3}+13 x^{2}+21 x+9 \\
2 x^{3}+3 x^{2}
\end{array} \\
\hline \frac{10 x^{2}+21 x+9}{10 x^{2}+15 x} \\
6 x+9
\end{array} \\
& \begin{array}{c}
c \\
2 x+3 \\
\begin{array}{c}
x^{2}+5 x+3 \\
2 x^{3}+13 x^{2}+21 x+9 \\
2 x^{3}+3 x^{2}
\end{array} \\
\hline \frac{10 x^{2}+21 x+9}{10 x^{2}+15 x} \\
6 x+9
\end{array} \\
& \begin{array}{c}
c \\
2 x+3 \\
\begin{array}{c}
x^{2}+5 x+3 \\
2 x^{3}+13 x^{2}+21 x+9 \\
2 x^{3}+3 x^{2}
\end{array} \\
\hline \frac{10 x^{2}+21 x+9}{10 x^{2}+15 x} \\
6 x+9
\end{array} \\
& \begin{array}{c}
c \\
2 x+3 \\
\begin{array}{c}
x^{2}+5 x+3 \\
2 x^{3}+13 x^{2}+21 x+9 \\
2 x^{3}+3 x^{2}
\end{array} \\
\hline \frac{10 x^{2}+21 x+9}{10 x^{2}+15 x} \\
6 x+9
\end{array}
\end{aligned}
$$

Step2: multiply:
Step 3: subtract

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

Step1: divide: $\mathbf{6 x} \div \mathbf{2 x}=\mathbf{3}$

$$
\begin{array}{c|c} 
& x^{2}+5 x+3 \\
\cline { 2 - 3 } 2 x+3 & \begin{array}{l}
2 x^{3}+13 x^{2}+21 x+9 \\
2 x^{3}+3 x^{2}
\end{array} \\
\cline { 2 - 4 } & \frac{10 x^{2}+21 x+9}{10 x^{2}+15 x} \\
& \frac{6 x+9}{}
\end{array}
$$

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

Step1: divide: $\mathbf{6 x} \div \mathbf{2 x}=\mathbf{3}$

\[

\]

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

Step1: divide: $\mathbf{6 x} \div \mathbf{2 x}=\mathbf{3}$

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

\[

\]

Step1: divide: $\mathbf{6 x} \div \mathbf{2 x}=\mathbf{3}$

Step 3: subtract
Step2: multiply: $\mathbf{3}(2 \mathrm{x}+3)=$

$$
0 \rightarrow-
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

$$
\begin{aligned}
& x^{2}+5 x+3 \\
& 2 \mathrm{x}+3 \quad 2 \mathrm{x}^{3}+13 \mathrm{x}^{2}+21 \mathrm{x}+9 \\
& 2 \mathrm{x}^{3}+3 \mathrm{x}^{2} \\
& 10 x^{2}+21 x+9 \\
& 10 x^{2}+15 x \\
& 6 x+9
\end{aligned}
$$

Step 3: subtract
Step1: divide: $\mathbf{6 x} \div \mathbf{2 x}=\mathbf{3}$

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

\[

\]

Step1: divide: $\mathbf{6 x} \div \mathbf{2 x}=\mathbf{3}$

Step 3: subtract
Step2: multiply: 3(2x+3)=6x+9

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

\[

\]

Step1: divide: $\mathbf{6 x} \div \mathbf{2 x}=\mathbf{3}$
Step2: multiply: $3(2 x+3)=6 x+9$
Step 3: subtract

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

\[

\]

Step1: divide: $\mathbf{6 x} \div \mathbf{2 x}=\mathbf{3}$
Step2: multiply: $\mathbf{3}(\mathbf{2 x}+\mathbf{3})=\mathbf{6 x}+\mathbf{9}$
Step 3: subtract

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

\[

\]

Step1: divide: $\mathbf{6 x} \div \mathbf{2 x}=\mathbf{3}$
Step2: multiply: $\mathbf{3}(\mathbf{2 x}+\mathbf{3})=\mathbf{6 x}+\mathbf{9}$
Step 3: subtract

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

$$
\begin{aligned}
& x^{2}+5 x+3 \\
& 2 x+3 \quad 2 x^{3}+13 x^{2}+21 x+9 \\
& 2 \mathrm{x}^{3}+3 \mathrm{x}^{2} \\
& 10 x^{2}+21 x+9 \\
& 10 x^{2}+15 x \\
& 6 x+9 \\
& 6 x+9
\end{aligned}
$$

Step1: divide: $\mathbf{6 x} \div \mathbf{2 x}=\mathbf{3}$
Step2: multiply: $\mathbf{3}(\mathbf{2 x}+\mathbf{3})=\mathbf{6 x}+\mathbf{9}$

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=$ $\qquad$

\[

\]

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=\underline{x^{2}+5 x+3}$

Step1: divide: $\mathbf{6 x} \div \mathbf{2 x}=\mathbf{3}$

\[

\]

Step2: multiply: $\mathbf{3}(\mathbf{2 x}+\mathbf{3})=\mathbf{6 x}+\mathbf{9}$

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
6. $\left(2 x^{3}+13 x^{2}+21 x+9\right) \div(2 x+3)=\underline{x^{2}+5 x+3}$

Step1: divide: $\mathbf{6 x} \div \mathbf{2 x}=\mathbf{3}$

\[

\]

Step2: multiply: $\mathbf{3}(\mathbf{2 x}+\mathbf{3})=\mathbf{6 x}+\mathbf{9}$

Dividing a polynomial by a polynomial is similar to long division with numbers. We will illustrate the process here.

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

$$
x ^ { 2 } + 2 x - 3 \longdiv { 2 x ^ { 4 } + 5 x ^ { 3 } - 6 x ^ { 2 } - 7 x + 6 }
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

$$
x ^ { 2 } + 2 x - 3 \longdiv { 2 x ^ { 4 } + 5 x ^ { 3 } - 6 x ^ { 2 } - 7 x + 6 }
$$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

$$
x ^ { 2 } + 2 x - 3 \longdiv { 2 x ^ { 4 } + 5 x ^ { 3 } - 6 x ^ { 2 } - 7 x + 6 }
$$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

$$
x ^ { 2 } + 2 x - 3 \longdiv { 2 x ^ { 4 } + 5 x ^ { 3 } - 6 x ^ { 2 } - 7 x + 6 }
$$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

$$
\begin{array}{c|c} 
& \frac { 2 x ^ { 2 } } { 2 } + 2 x - 3 \longdiv { 2 x ^ { 4 } + 5 x ^ { 3 } - 6 x ^ { 2 } - 7 x + 6 }
\end{array}
$$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

$$
\begin{array}{c|c}
x^{2}+2 x-3 & 2 x^{2} \\
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6
\end{array}
$$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

$$
\begin{array}{c|c} 
& 2 x^{2} \\
x^{2}+2 x-3 & 2 x^{4}+5 x^{3}-6 x^{2}-7 x+6
\end{array}
$$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

$$
\begin{array}{c|c} 
& 2 x^{2} \\
x^{2}+2 x-3 & 2 x^{4}+5 x^{3}-6 x^{2}-7 x+6
\end{array}
$$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

$$
\begin{array}{c|c}
\mathrm{x}^{2}+2 x-3 & \frac{2 x^{2}}{2 x^{4}+5 x^{3}-6 x^{2}-7 x+6}
\end{array}
$$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:

$$
\begin{array}{c|c}
x^{2}+2 x-3 & 2 x^{2} \\
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}
\end{array}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:

$$
\begin{array}{c|c}
x^{2}+2 x-3 & 2 x^{2} \\
\begin{array}{l}
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array}
\end{array}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

$$
\begin{array}{c|c}
x^{2}+2 x-3 & 2 x^{2} \\
\begin{array}{l}
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array}
\end{array}
$$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

$$
\begin{array}{c|c} 
& \frac{2 x^{2}}{x^{2}+2 x-3} \begin{array}{l}
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array}
\end{array}
$$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

$$
\begin{array}{c|c}
x^{2}+2 x-3 & 2 x^{2} \\
\begin{array}{l}
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array}
\end{array}
$$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:

$$
\begin{array}{c|c}
x^{2}+2 x-3 & \frac{2 x^{2}}{2 x^{4}+5 x^{3}-6 x^{2}-7 x+6} \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:

$$
x^{2}+2 x-3 \begin{gathered}
2 x^{2} \\
\frac{\begin{array}{l}
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array}}{x^{3}}
\end{gathered}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:

$$
x^{2}+2 x-3 \begin{gathered}
2 x^{2} \\
\frac{\begin{array}{l}
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array}}{x^{3}-7 x}
\end{gathered}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:

$$
x^{2}+2 x-3 \begin{gathered}
2 x^{2} \\
\frac{\begin{array}{l}
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array}}{x^{3}-7 x+6}
\end{gathered}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:

$$
\begin{gathered}
\mathbf{x}^{2}+2 x-3 \begin{array}{c}
2 x^{2} \\
\frac{\begin{array}{l}
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array}}{x^{3}-7 x+6}
\end{array}
\end{gathered}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:

$$
\begin{gathered}
x ^ { 2 } + 2 x - 3 \longdiv { 2 x ^ { 2 } } \begin{array} { l } 
{ \frac { 2 x ^ { 4 } + 5 x ^ { 3 } - 6 x ^ { 2 } - 7 x + 6 } { 2 x ^ { 4 } + 4 x ^ { 3 } - 6 x ^ { 2 } } }
\end{array} \\
\frac{x^{3}-7 x+6}{}
\end{gathered}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:

$$
\begin{gathered}
\mathrm{x}^{2}+2 \mathrm{x}-3 \begin{array}{c}
2 \mathrm{x}^{2} \\
\frac{\begin{array}{l}
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array}}{x^{3}-7 x+6}
\end{array}
\end{gathered}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:

$$
\begin{array}{c|c} 
& 2 x^{2}+x \\
x^{2}+2 x-3 & \begin{array}{l}
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array} \\
x^{3}-7 x+6
\end{array}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:

$$
\begin{array}{c|c}
x^{2}+2 x-3 & \frac{2 x^{2}+x}{} \begin{array}{l}
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array} \\
\frac{x^{3}-7 x+6}{}
\end{array}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:

$$
\begin{array}{c|c}
x^{2}+2 x-3 & \frac{2 x^{2}+x}{} \begin{array}{l}
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array} \\
\frac{x^{3}-7 x+6}{}
\end{array}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:

$$
\begin{array}{c|c}
x^{2}+2 x-3 & \frac{2 x^{2}+x}{2 x^{4}+5 x^{3}-6 x^{2}-7 x+6} \\
\frac{2 x^{4}+4 x^{3}-6 x^{2}}{x^{3}-7 x+6}
\end{array}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:

$$
\begin{array}{c|c}
x^{2}+2 x-3 & \frac{2 x^{2}+x}{2 x^{4}+5 x^{3}-6 x^{2}-7 x+6} \\
\frac{2 x^{4}+4 x^{3}-6 x^{2}}{} \\
x^{3}-7 x+6 \\
x^{3}
\end{array}
$$

Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:

$$
\begin{array}{c|c}
x^{2}+2 x-3 & \frac{2 x^{2}+x}{2 x^{4}+5 x^{3}-6 x^{2}-7 x+6} \\
\frac{2 x^{4}+4 x^{3}-6 x^{2}}{} \\
x^{3}-7 x+6 \\
x^{3}+2 x^{2}
\end{array}
$$

Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:

$$
\begin{array}{c|c}
x^{2}+2 x-3 & 2 x^{2}+x \\
\frac{2 x^{4}+5 x^{3}-6 x^{2}-7 x+6}{2 x^{4}+4 x^{3}-6 x^{2}} \\
\hline x^{3}-7 x+6 \\
x^{3}+2 x^{2}-3 x
\end{array}
$$

Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:

$$
\begin{array}{c|c}
x^{2}+2 x-3 & \frac{2 x^{2}+x}{} \begin{array}{l}
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array} \\
\frac{x^{3}-7 x+6}{x^{3}+2 x^{2}-3 x}
\end{array}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:

$$
\begin{array}{c|c}
x^{2}+2 x-3 & 2 x^{2}+x \\
\begin{array}{c}
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array} \\
x^{3}-7 x+6 \\
x^{3}+2 x^{2}-3 x
\end{array}
$$

Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:

$$
x^{2}+2 x-3 \begin{gathered}
2 x^{2}+x \\
\frac{\begin{array}{l}
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array}}{x^{3}-7 x+6} \\
x^{3}+2 x^{2}-3 x
\end{gathered}
$$

Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:

$$
\begin{array}{c|c}
x^{2}+2 x-3 & \frac{2 x^{2}+x}{} \begin{array}{l}
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array} \\
\frac{x^{3}-7 x+6}{x^{3}+2 x^{2}-3 x}
\end{array}
$$

Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:

$$
\left.\begin{array}{r|}
x^{2}+2 x-3 \\
\begin{array}{c}
2 x^{2}+x \\
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array} \\
\frac{x^{3}-7 x+6}{x^{3}+2 x^{2}-3 x}
\end{array}\right)
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:

$$
\begin{aligned}
& \begin{array}{c|c}
x^{2}+2 x-3 \\
& \begin{array}{l}
2 x^{2}+x \\
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array}
\end{array} \\
& x^{3} \quad-7 x+6 \\
& x^{3}+2 x^{2}-3 x \\
& -2 x^{2}-4 x
\end{aligned}
$$

Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:

$$
\begin{array}{r|}
x^{2}+2 x-3 \\
\begin{array}{l}
2 x^{2}+x \\
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array} \\
\frac{x^{3}-7 x+6}{x^{3}+2 x^{2}-3 x} \\
-2 x^{2}-4 x+6
\end{array}, ~
$$

Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:

$$
\begin{array}{r|}
x^{2}+2 x-3 \\
\cline { 1 - 3 } \begin{array}{c}
2 x^{2}+x \\
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array} \\
\cline { 1 - 1 } \begin{array}{c}
\mathbf{x}^{3}+2 x^{2}-3 x+6 \\
-2 x^{2}-4 x+6
\end{array}
\end{array}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:

$$
\begin{array}{r}
x^{2}+2 x-3 \begin{array}{c}
2 x^{2}+x \\
\begin{array}{r}
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array} \\
\frac{x^{3}-7 x+6}{x^{3}+2 x^{2}-3 x}
\end{array} \\
\frac{-2 x^{2}-4 x+6}{}
\end{array}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:

$$
\begin{array}{r|}
x^{2}+2 x-3 \\
\begin{array}{c}
2 x^{2}+x \\
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array} \\
\end{array}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{array}{r}
\frac{2 x^{2}+x-2}{x^{2}+2 x-3} \begin{array}{|r}
\begin{array}{l}
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array} \\
\frac{x^{3}-7 x+6}{x^{3}+2 x^{2}-3 x} \\
\hline-2 x^{2}-4 x+6
\end{array}
\end{array}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:

$$
\begin{array}{r}
x^{2}+2 x-3 x^{2}+x-2 \\
\begin{array}{c}
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array} \\
\frac{x^{3}-7 x+6}{x^{3}+2 x^{2}-3 x} \\
-2 x^{2}-4 x+6
\end{array}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:

$$
\begin{array}{r}
2 x^{2}+x-2 \\
x^{2}+2 x-3 \begin{array}{r}
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array} \\
\begin{array}{l}
x^{3}-7 x+6 \\
\frac{x^{3}+2 x^{2}-3 x}{-2 x^{2}-4 x+6}
\end{array}
\end{array}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{array}{r|r}
x^{2}+2 x-3 & \begin{array}{r}
2 x^{2}+x-2 \\
\hline 2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array} \\
\hline \frac{x^{3}-7 x+6}{x^{3}+2 x^{2}-3 x} \\
\hline-2 x^{2}-4 x+6
\end{array}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{aligned}
& 2 x^{2}+x-2 \\
& x^{2}+2 x-3 \quad 2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
& 2 \mathrm{x}^{4}+4 \mathrm{x}^{3}-\mathbf{6} \mathrm{x}^{2} \\
& \mathrm{x}^{3} \quad-7 \mathrm{x}+6 \\
& x^{3}+2 x^{2}-3 x \\
& -2 x^{2}-4 x+6 \\
& -2 x^{2}
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{array}{r}
2 x^{2}+x-2 \\
\hline x^{2}+2 x-3 \begin{array}{c}
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array} \\
\frac{x^{3}-7 x+6}{x^{3}+2 x^{2}-3 x} \\
\hline-2 x^{2}-4 x+6 \\
-2 x^{2}-4 x
\end{array}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{array}{r}
\frac{2 x^{2}+x-2}{x^{2}+2 x-3} \begin{array}{r}
\begin{array}{c}
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array} \\
\\
\frac{x^{3}+2 x^{2}-7 x+6}{-2 x^{2}-4 x+6} \\
-2 x^{2}-4 x+6
\end{array}
\end{array}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:

$$
\begin{array}{r}
x^{2}+2 x-3 x^{2}+x-2 \\
\cline { 1 - 1 } \begin{array}{r}
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array} \\
\frac{x^{3}-7 x+6}{x^{3}+2 x^{2}-3 x} \begin{array}{r}
-2 x^{2}-4 x+6 \\
-2 x^{2}-4 x+6
\end{array}
\end{array}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:

$$
\begin{aligned}
& 2 x^{2}+x-2 \\
& \begin{array}{l|l}
x^{2}+2 x-3 & \begin{array}{l}
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array}
\end{array} \\
& 2 x^{4}+4 x^{3}-6 x^{2} \\
& \mathrm{x}^{3} \quad-7 x+6 \\
& x^{3}+2 x^{2}-3 x \\
& -2 x^{2}-4 x+6 \\
& -2 x^{2}-4 x+6
\end{aligned}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:

$$
\begin{aligned}
& 2 x^{2}+x-2 \\
& \begin{array}{l|l}
x^{2}+2 x-3 & \begin{array}{l}
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array}
\end{array} \\
& 2 \mathrm{x}^{4}+4 \mathrm{x}^{3}-\mathbf{6} \mathrm{x}^{2} \\
& \mathrm{x}^{3} \quad-7 \mathrm{x}+6 \\
& x^{3}+2 x^{2}-3 x \\
& -2 x^{2}-4 x+6 \\
& -2 x^{2}-4 x+6
\end{aligned}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:

$$
\begin{array}{r}
\mathbf{x}^{2}+2 x-3 x^{2}+x-2 \\
\cline { 1 - 1 } \begin{array}{r}
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array} \\
\frac{x^{3}-7 x+6}{x^{3}+2 x^{2}-3 x} \begin{array}{r}
-2 x^{2}-4 x+6 \\
-2 x^{2}-4 x+6
\end{array}
\end{array}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:

$$
\begin{array}{r}
x^{2}+2 x-3 x^{2}+x-2 \\
\begin{array}{r}
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array} \\
\begin{array}{r}
x^{3}-7 x+6 \\
x^{3}+2 x^{2}-3 x
\end{array} \\
\frac{-2 x^{2}-4 x+6}{-2 x^{2}-4 x+6} \\
0
\end{array}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=$

Step1: divide:

$$
\begin{aligned}
& 2 x^{2}+x-2 \\
& \begin{array}{l|l}
\mathrm{x}^{2}+2 \mathrm{x}-3 & \begin{array}{l}
2 \mathrm{x}^{4}+5 \mathrm{x}^{3}-6 \mathrm{x}^{2}-7 \mathrm{x}+6 \\
2 \mathrm{x}^{4}+4 \mathrm{x}^{3}-6 \mathrm{x}^{2}
\end{array}
\end{array} \\
& 2 \mathrm{x}^{4}+4 \mathrm{x}^{3}-\mathbf{6} \mathrm{x}^{2} \\
& \mathrm{x}^{3} \quad-7 x+6 \\
& x^{3}+2 x^{2}-3 x \\
& -2 x^{2}-4 x+6 \\
& -2 x^{2}-4 x+6
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=2 x^{2}+x-2$

Step1: divide:

$$
\begin{aligned}
& 2 x^{2}+x-2 \\
& \begin{array}{l|l}
x^{2}+2 x-3 \\
\begin{array}{l}
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array}
\end{array} \\
& 2 x^{4}+4 x^{3}-6 x^{2} \\
& \mathrm{x}^{3} \quad-7 \mathrm{x}+6 \\
& x^{3}+2 x^{2}-3 x \\
& -2 x^{2}-4 x+6 \\
& -2 x^{2}-4 x+6
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form. 7. $\left(2 x^{4}+5 x^{3}-6 x^{2}-7 x+6\right) \div\left(x^{2}+2 x-3\right)=2 x^{2}+x-2$

$$
\begin{array}{r}
\frac{2 x^{2}+x-2}{x^{2}+2 x-3} \begin{array}{r}
\begin{array}{r}
2 x^{4}+5 x^{3}-6 x^{2}-7 x+6 \\
2 x^{4}+4 x^{3}-6 x^{2}
\end{array} \\
\frac{x^{3}-7 x+6}{x^{3}+2 x^{2}-3 x} \\
\frac{-2 x^{2}-4 x+6}{-2 x^{2}-4 x+6} \\
0
\end{array}
\end{array}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

$$
5 x - 2 \longdiv { 5 x ^ { 4 } + 1 3 x ^ { 3 } - 2 6 x ^ { 2 } + 1 8 x - 4 }
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

$$
5 x - 2 \longdiv { 5 x ^ { 4 } + 1 3 x ^ { 3 } - 2 6 x ^ { 2 } + 1 8 x - 4 }
$$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

$$
5 x - 2 \longdiv { 5 x ^ { 4 } + 1 3 x ^ { 3 } - 2 6 x ^ { 2 } + 1 8 x - 4 }
$$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

$$
\begin{array}{l|l}
5 x-2 & 5 x^{4}+13 x^{3}-26 x^{2}+18 x-4
\end{array}
$$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

$$
\begin{array}{c|c} 
& \frac{x^{3}}{5 x-2} \begin{array}{|c|c|}
5 x^{4}+13 x^{3}-26 x^{2}+18 x-4
\end{array}
\end{array}
$$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

$$
\begin{array}{c|c} 
& \frac{x^{3}}{5 x-2} \\
\cline { 2 - 3 } & 5 x^{4}+13 x^{3}-26 x^{2}+18 x-4
\end{array}
$$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

$$
\begin{array}{c|c} 
& \frac{x^{3}}{5 x-2} \\
\cline { 2 - 3 }+13 x^{3}-26 x^{2}+18 x-4
\end{array}
$$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

\[

\]

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

\[

\]

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

\[

\]

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

$$
\begin{array}{c|c} 
& x^{3} \\
\cline { 2 - 2 }-2 & 5 x^{4}+13 x^{3}-26 x^{2}+18 x-4 \\
5 x^{4}-2 x^{3}
\end{array}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

$$
\begin{array}{c|c} 
& x^{3} \\
\cline { 2 - 2 }-2 & 5 x^{4}+13 x^{3}-26 x^{2}+18 x-4 \\
5 x^{4}-2 x^{3}
\end{array}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

\[

\]

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

\[

\]

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

$$
\begin{array}{c|c}
5 x - 2 \longdiv { x ^ { 3 } } \\
\frac{5 x^{4}+13 x^{3}-26 x^{2}+18 x-4}{5 x^{4}-2 x^{3}}
\end{array}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

$$
5 x-2 \begin{gathered}
\frac{x^{3}}{5 x^{4}+13 x^{3}-26 x^{2}+18 x-4} \\
\frac{5 x^{4}-2 x^{3}}{15 x^{3}-26 x^{2}}
\end{gathered}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

$$
5 x-2 \begin{gathered}
\frac{x^{3}}{5 x^{4}+13 x^{3}-26 x^{2}+18 x-4} \\
\frac{5 x^{4}-2 x^{3}}{15 x^{3}-26 x^{2}+18 x}
\end{gathered}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

$$
\begin{array}{c|c} 
& \frac{x^{3}}{5 x-2} \begin{array}{|c}
5 x^{4}+13 x^{3}-26 x^{2}+18 x-4 \\
5 x^{4}-2 x^{3}
\end{array} \\
\frac{15 x^{3}-26 x^{2}+18 x-4}{}
\end{array}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

$$
\begin{array}{r|} 
\\
5 x-2 \\
\begin{array}{l}
5 x^{4}+13 x^{3}-26 x^{2}+18 x-4 \\
5 x^{4}-2 x^{3}
\end{array} \\
\frac{15 x^{3}-26 x^{2}+18 x-4}{c}
\end{array}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

$$
\begin{array}{r|} 
\\
5 x-2 \\
\begin{array}{l}
5 x^{4}+13 x^{3}-26 x^{2}+18 x-4 \\
5 x^{4}-2 x^{3}
\end{array} \\
\frac{15 x^{3}-26 x^{2}+18 x-4}{c}
\end{array}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

\[

\]

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

$$
\begin{array}{c|c} 
& x^{3}+3 x^{2} \\
5 x-2 & 5 x^{4}+13 x^{3}-26 x^{2}+18 x-4 \\
\frac{5 x^{4}-2 x^{3}}{15 x^{3}-26 x^{2}+18 x-4}
\end{array}
$$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

$$
\begin{array}{r|c} 
& x^{3}+3 x^{2} \\
-13 x^{4}+13 x^{3}-26 x^{2}+18 x-4 \\
\frac{5 x^{4}-2 x^{3}}{15 x^{3}-26 x^{2}+18 x-4}
\end{array}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

\[

\]

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

\[

\]

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

\[

\]

Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

\[

\]

Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

\[

\]

Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

$$
\begin{array}{r|} 
\\
5 x-2 \\
\begin{array}{|l}
5 x^{4}+13 x^{3}-26 x^{2}+18 x-4 \\
5 x^{4}-2 x^{3}
\end{array} \\
\hline 15 x^{3}-\mathbf{2 6} x^{2}+18 x-4 \\
15 x^{3}-6 x^{2}
\end{array}
$$

Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

$$
\begin{array}{r|} 
\\
5 x-2 \\
\begin{array}{l}
5 x^{4}+13 x^{3}-26 x^{2}+18 x-4 \\
5 x^{4}-2 x^{3}
\end{array} \\
\hline 15 x^{3}-26 x^{2}+18 x-4 \\
15 x^{3}-6 x^{2}
\end{array}
$$

Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

$$
\begin{aligned}
& \\
& 5 \mathrm{x}^{4}-2 \mathrm{x}^{3} \\
& 15 x^{3}-26 x^{2}+18 x-4 \\
& 15 x^{3}-6 x^{2}
\end{aligned}
$$

Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

$$
\begin{aligned}
& \\
& 5 x^{4}-2 x^{3} \\
& 15 x^{3}-26 x^{2}+18 x-4 \\
& 15 x^{3}-6 x^{2} \\
& -20 x^{2}
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

$$
\begin{aligned}
& \\
& 5 x^{4}-2 x^{3} \\
& 15 x^{3}-26 x^{2}+18 x-4 \\
& 15 x^{3}-6 x^{2} \\
& -20 x^{2}+18 x
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

$$
\begin{aligned}
& \\
& 5 x^{4}-2 x^{3} \\
& 15 x^{3}-26 x^{2}+18 x-4 \\
& 15 x^{3}-6 x^{2} \\
& -20 x^{2}+18 x-4
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

$$
\begin{aligned}
& \\
& 5 x^{4}-2 x^{3} \\
& 15 x^{3}-26 x^{2}+18 x-4 \\
& 15 x^{3}-6 x^{2} \\
& -20 x^{2}+18 x-4
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

$$
\begin{aligned}
& \\
& 5 x^{4}-2 x^{3} \\
& 15 x^{3}-26 x^{2}+18 x-4 \\
& 15 x^{3}-6 x^{2} \\
& -20 x^{2}+18 x-4
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

\[

\]

Step1: divide:

Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\left.\right) \frac{15 x^{3}-26 x^{2}+18 x-4}{15 x^{3}-6 x^{2}} \begin{array}{r}
-20 x^{2}+18 x-4
\end{array}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{aligned}
& \\
& 5 x^{4}-2 x^{3} \\
& 15 x^{3}-26 x^{2}+18 x-4 \\
& 15 x^{3}-6 x^{2} \\
& -20 x^{2}+18 x-4
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{aligned}
& \\
& 5 \mathrm{x}^{4}-\mathbf{2 x} \mathrm{x}^{3} \\
& 15 x^{3}-26 x^{2}+18 x-4 \\
& 15 x^{3}-6 x^{2} \\
& -20 x^{2}+18 x-4
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{aligned}
& x^{3}+3 x^{2}-4 x \\
& 5 \mathrm{x}-2 \quad 5 \mathrm{x}^{4}+13 \mathrm{x}^{3}-26 \mathrm{x}^{2}+18 \mathrm{x}-4 \\
& 5 \mathrm{x}^{4}-\mathbf{2 x ^ { 3 }} \\
& 15 x^{3}-26 x^{2}+18 x-4 \\
& 15 x^{3}-6 x^{2} \\
& -20 x^{2}+18 x-4
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

\[

\]

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{aligned}
& x^{3}+3 x^{2}-4 x \\
& 5 x-2 \quad 5 x^{4}+13 x^{3}-26 x^{2}+18 x-4 \\
& 5 \mathrm{x}^{4}-\mathbf{2 x} \mathrm{x}^{3} \\
& 15 x^{3}-26 x^{2}+18 x-4 \\
& 15 x^{3}-6 x^{2} \\
& -20 x^{2}+18 x-4 \\
& -20 x^{2}+8 x
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

\[

\]

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

\[

\]

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

\[

\]

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{aligned}
& \\
& 5 x^{4}-2 x^{3} \\
& 15 x^{3}-26 x^{2}+18 x-4 \\
& 15 x^{3}-6 x^{2} \\
& -20 x^{2}+18 x-4 \\
& -20 x^{2}+8 x
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{aligned}
& \\
& 5 \mathrm{x}^{4}-\mathbf{2 x ^ { 3 }} \\
& 15 x^{3}-26 x^{2}+18 x-4 \\
& 15 x^{3}-6 x^{2} \\
& -20 x^{2}+18 x-4 \\
& -20 x^{2}+8 x \\
& \text { 10x }
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{aligned}
& \\
& 5 \mathrm{x}^{4}-\mathbf{2 x ^ { 3 }} \\
& 15 x^{3}-26 x^{2}+18 x-4 \\
& 15 x^{3}-6 x^{2} \\
& -20 x^{2}+18 x-4 \\
& -20 x^{2}+8 x \\
& \text { 10x-4 }
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

Step1: divide:

$$
\begin{aligned}
& \\
& 5 \mathrm{x}^{4}-2 \mathrm{x}^{3} \\
& 15 x^{3}-26 x^{2}+18 x-4 \\
& 15 x^{3}-6 x^{2} \\
& -20 x^{2}+18 x-4 \\
& -20 x^{2}+8 x \\
& \text { 10x-4 }
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

Step1: divide:

$$
\begin{aligned}
& \\
& 5 x^{4}-2 x^{3} \\
& 15 x^{3}-26 x^{2}+18 x-4 \\
& 15 x^{3}-6 x^{2} \\
& -20 x^{2}+18 x-4 \\
& -20 x^{2}+8 x \\
& \text { 10x-4 }
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{aligned}
& \\
& 5 x^{4}-2 x^{3} \\
& 15 x^{3}-26 x^{2}+18 x-4 \\
& 15 x^{3}-6 x^{2} \\
& -20 x^{2}+18 x-4 \\
& -20 x^{2}+8 x \\
& \text { 10x-4 }
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{aligned}
& x^{3}+3 x^{2}-4 x+2 \\
& 5 x-2 \quad 5 x^{4}+13 x^{3}-26 x^{2}+18 x-4 \\
& 5 \mathrm{x}^{4}-\mathbf{2 x ^ { 3 }} \\
& 15 x^{3}-26 x^{2}+18 x-4 \\
& 15 x^{3}-6 x^{2} \\
& -20 x^{2}+18 x-4 \\
& -20 x^{2}+8 x \\
& \text { 10x-4 }
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

Step1: divide:

$$
\begin{aligned}
& x^{3}+3 x^{2}-4 x+2 \\
& 5 x-2 \quad 5 x^{4}+13 x^{3}-26 x^{2}+18 x-4 \\
& 5 \mathrm{x}^{4}-\mathbf{2 x ^ { 3 }} \\
& 15 x^{3}-26 x^{2}+18 x-4 \\
& 15 x^{3}-6 x^{2} \\
& -20 x^{2}+18 x-4 \\
& -20 x^{2}+8 x \\
& 10 x-4
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{aligned}
& x^{3}+3 x^{2}-4 x+2 \\
& 5 x-2 \quad 5 x^{4}+13 x^{3}-26 x^{2}+18 x-4 \\
& 5 \mathrm{x}^{4}-\mathbf{2 x ^ { 3 }} \\
& 15 x^{3}-26 x^{2}+18 x-4 \\
& 15 x^{3}-6 x^{2} \\
& -20 x^{2}+18 x-4 \\
& -20 x^{2}+8 x \\
& \text { 10x-4 }
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

Step1: divide:

$$
\left.\right)
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

Step1: divide:

$$
\begin{aligned}
& x^{3}+3 x^{2}-4 x+2 \\
& 5 x-2 \quad 5 x^{4}+13 x^{3}-26 x^{2}+18 x-4 \\
& 5 \mathrm{x}^{4}-\mathbf{2 x ^ { 3 }} \\
& 15 x^{3}-26 x^{2}+18 x-4 \\
& 15 x^{3}-6 x^{2} \\
& -20 x^{2}+18 x-4 \\
& -20 x^{2}+8 x \\
& \text { 10x-4 } \\
& \text { 10x }
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

Step1: divide:

$$
\left.\right)
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

Step1: divide:

$$
\begin{aligned}
& x^{3}+3 x^{2}-4 x+2 \\
& 5 x-2 \quad 5 x^{4}+13 x^{3}-26 x^{2}+18 x-4 \\
& 5 \mathrm{x}^{4}-\mathbf{2 x ^ { 3 }} \\
& 15 x^{3}-26 x^{2}+18 x-4 \\
& 15 x^{3}-6 x^{2} \\
& -20 x^{2}+18 x-4 \\
& -20 x^{2}+8 x \\
& \text { 10x-4 } \\
& 10 x-4
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

Step1: divide:

$$
\begin{aligned}
& x^{3}+3 x^{2}-4 x+2 \\
& 5 \mathrm{x}-2 \quad 5 \mathrm{x}^{4}+13 \mathrm{x}^{3}-26 \mathrm{x}^{2}+18 \mathrm{x}-4 \\
& 5 \mathrm{x}^{4}-\mathbf{2 x ^ { 3 }} \\
& 15 x^{3}-26 x^{2}+18 x-4 \\
& 15 x^{3}-6 x^{2} \\
& -20 x^{2}+18 x-4 \\
& -20 x^{2}+8 x \\
& \text { 10x-4 } \\
& 10 x-4
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

Step1: divide:

$$
\begin{aligned}
& x^{3}+3 x^{2}-4 x+2 \\
& 5 \mathrm{x}-2 \quad 5 \mathrm{x}^{4}+13 \mathrm{x}^{3}-26 \mathrm{x}^{2}+18 \mathrm{x}-4 \\
& 5 \mathrm{x}^{4}-\mathbf{2 x ^ { 3 }} \\
& 15 x^{3}-26 x^{2}+18 x-4 \\
& 15 x^{3}-6 x^{2} \\
& -20 x^{2}+18 x-4 \\
& -20 x^{2}+8 x \\
& \text { 10x-4 } \\
& 10 x-4
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

Step1: divide:

$$
\begin{aligned}
& x^{3}+3 x^{2}-4 x+2 \\
& 5 \mathrm{x}-2 \quad 5 \mathrm{x}^{4}+13 \mathrm{x}^{3}-26 \mathrm{x}^{2}+18 \mathrm{x}-4 \\
& 5 \mathrm{x}^{4}-\mathbf{2 x ^ { 3 }} \\
& 15 x^{3}-26 x^{2}+18 x-4 \\
& 15 x^{3}-6 x^{2} \\
& -20 x^{2}+18 x-4 \\
& -20 x^{2}+8 x \\
& \text { 10x-4 } \\
& 10 x-4
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

Step1: divide:

$$
\begin{aligned}
& x^{3}+3 x^{2}-4 x+2 \\
& 5 x-2 \quad 5 x^{4}+13 x^{3}-26 x^{2}+18 x-4 \\
& 5 \mathrm{x}^{4}-\mathbf{2 x ^ { 3 }} \\
& 15 x^{3}-26 x^{2}+18 x-4 \\
& 15 x^{3}-6 x^{2} \\
& -20 x^{2}+18 x-4 \\
& -20 x^{2}+8 x \\
& \text { 10x-4 } \\
& \frac{10 x-4}{0}
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=$

Step1: divide:

$$
\left.\begin{array}{r|r} 
& x^{3}+3 x^{2}-4 x+2 \\
\cline { 2 - 3 } 5-2 & 5 x^{4}+13 x^{3}-26 x^{2}+18 x-4 \\
5 x^{4}-2 x^{3}
\end{array}\right) \frac{15 x^{3}-26 x^{2}+18 x-4}{15 x^{3}-6 x^{2}} \begin{array}{r}
-20 x^{2}+18 x-4 \\
\frac{-20 x^{2}+8 x}{10 x-4} \\
\\
\end{array}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=x^{3}+3 x^{2}-4 x+2$

Step1: divide:

$$
\begin{aligned}
& x^{3}+3 x^{2}-4 x+2 \\
& 5 x-2 \quad 5 x^{4}+13 x^{3}-26 x^{2}+18 x-4 \\
& 5 \mathrm{x}^{4}-\mathbf{2 x ^ { 3 }} \\
& 15 x^{3}-26 x^{2}+18 x-4 \\
& 15 x^{3}-6 x^{2} \\
& -20 x^{2}+18 x-4 \\
& -20 x^{2}+8 x \\
& \text { 10x }-4 \\
& \frac{10 x-4}{0}
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
8. $\left(5 x^{4}+13 x^{3}-26 x^{2}+18 x-4\right) \div(5 x-2)=x^{3}+3 x^{2}-4 x+2$

$$
\begin{aligned}
& x^{3}+3 x^{2}-4 x+2 \\
& 5 \mathrm{x}-2 \quad 5 \mathrm{x}^{4}+13 \mathrm{x}^{3}-26 \mathrm{x}^{2}+18 \mathrm{x}-4 \\
& 5 \mathrm{x}^{4}-\mathbf{2 x} \mathrm{x}^{3} \\
& 15 x^{3}-26 x^{2}+18 x-4 \\
& 15 x^{3}-6 x^{2} \\
& -20 x^{2}+18 x-4 \\
& -20 x^{2}+8 x \\
& \text { 10x-4 } \\
& \frac{10 x-4}{0}
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

$$
x ^ { 2 } + 3 \longdiv { x ^ { 5 } - 3 x ^ { 4 } + 4 x ^ { 3 } } + 3 x + 2 7
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

$$
x ^ { 2 } + 3 \longdiv { x ^ { 5 } - 3 x ^ { 4 } + 4 x ^ { 3 } } + 3 x + 2 7
$$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

$$
x ^ { 2 } + 3 \longdiv { x ^ { 5 } - 3 x ^ { 4 } + 4 x ^ { 3 } } + 3 x + 2 7
$$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

$$
x ^ { 2 } + 3 \longdiv { x ^ { 5 } - 3 x ^ { 4 } + 4 x ^ { 3 } \quad + 3 x + 2 7 }
$$

## Step1: divide:

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

\[

\]

## Step1: divide:

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

\[

\]

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

\[

\]

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

\[

\]

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:

| $x^{3}$ |  |
| :--- | :--- |
| +3 | $x^{5}-3 x^{4}+4 x^{3}$ <br> $x^{5}$ |

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:

$$
\quad+3 x+27
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:

\[

\]

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:

\[

\]

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:

$$
\quad+3 x+27
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:

\[

\]

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:

\[

\]

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:

\[

\]

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:

$$
\begin{aligned}
& \mathbf{x}^{3}
\end{aligned}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:

$$
\begin{aligned}
& \mathrm{x}^{3}-3 \mathrm{x}^{2}
\end{aligned}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:

$$
\begin{aligned}
& \mathrm{x}^{3}-3 \mathrm{x}^{2}
\end{aligned}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:

$$
\begin{aligned}
& \\
&
\end{aligned}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:

$$
\begin{aligned}
& x^{3}-3 x^{2}
\end{aligned}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:

\[

\]

Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:

$$
\left. \right\rvert\,
$$

Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:

$$
\begin{aligned}
& -3 x^{4} \quad-9 x^{2}
\end{aligned}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:

$$
\begin{aligned}
& \mathrm{x}^{3}-3 \mathrm{x}^{2} \\
& \mathrm{x}^{2}+3 \left\lvert\, \begin{array}{l|l}
\mathrm{x}^{5}-3 \mathrm{x}^{4}+4 \mathrm{x}^{3} & +3 \mathrm{x}+27
\end{array}\right. \\
& x^{5}+3 x^{3} \\
& -3 x^{4}+x^{3}+3 x+27 \\
& -3 x^{4} \quad-9 x^{2}
\end{aligned}
$$

Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:

$$
\begin{aligned}
& \mathrm{x}^{3}-3 \mathrm{x}^{2} \\
& \mathrm{x}^{2}+3 \left\lvert\, \begin{array}{l|l}
\mathrm{x}^{5}-3 \mathrm{x}^{4}+4 \mathrm{x}^{3} & +3 \mathrm{x}+27
\end{array}\right. \\
& \mathrm{x}^{5}+3 \mathrm{x}^{3} \\
& -3 x^{4}+x^{3}+3 x+27 \\
& -3 \mathrm{x}^{4} \quad-9 \mathrm{x}^{2}
\end{aligned}
$$

Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:

$$
\begin{aligned}
& \mathrm{x}^{3}-3 \mathrm{x}^{2} \\
& \mathrm{x}^{2}+3 \left\lvert\, \begin{array}{ll}
\mathrm{x}^{5}-3 \mathrm{x}^{4}+4 \mathrm{x}^{3} & +3 \mathrm{x}+27
\end{array}\right. \\
& \mathrm{x}^{5} \quad+3 \mathrm{x}^{3} \\
& -3 x^{4}+x^{3}+3 x+27 \\
& -3 \mathrm{x}^{4} \quad-9 \mathrm{x}^{2}
\end{aligned}
$$

Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\left. \right\rvert\,
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\left. \right\rvert\,
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{aligned}
& \mathrm{x}^{3}-3 \mathrm{x}^{2} \\
& \mathrm{x}^{2}+3 \left\lvert\, \begin{array}{l|l}
\mathrm{x}^{5}-3 \mathrm{x}^{4}+4 \mathrm{x}^{3} & +3 \mathrm{x}+27
\end{array}\right. \\
& \mathrm{x}^{5} \quad+3 \mathrm{x}^{3} \\
& -3 x^{4}+x^{3}+3 x+27 \\
& -3 x^{4}-9 x^{2} \\
& x^{3}+9 x^{2}+3 x+27
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{aligned}
& \mathrm{x}^{3}-3 \mathrm{x}^{2} \\
& x^{2}+3 \quad x^{5}-3 x^{4}+4 x^{3} \quad+3 x+27 \\
& \mathrm{x}^{5}+3 \mathrm{x}^{3} \\
& -3 x^{4}+x^{3}+3 x+27 \\
& \frac{-3 x^{4}-9 x^{2}}{x^{3}+9 x^{2}+3 x+27}
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{aligned}
& \mathrm{x}^{3}-3 \mathrm{x}^{2} \\
& \begin{array}{l|ll}
x^{2}+3 & x^{5}-3 x^{4}+4 x^{3} & +3 x+27
\end{array} \\
& x^{5}+3 x^{3} \\
& -3 x^{4}+x^{3}+3 x+27 \\
& -3 x^{4} \quad-9 x^{2} \\
& x^{3}+9 x^{2}+3 x+27
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\left. \right\rvert\,
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\left. \right\rvert\, \begin{aligned}
& -3 x^{4}+x^{3}+3 x+27 \\
& \\
& \frac{-3 x^{4}-9 x^{2}}{x^{3}+9 x^{2}+3 x+27}
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

\[

\]

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

\[

\]

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

\[

\]

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

\[

\]

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

\[

\]

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{aligned}
& \left. \right\rvert\, \\
& \frac{-3 x^{4}-9 x^{2}}{x^{3}+9 x^{2}+3 x+27}
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{aligned}
& \left. \right\rvert\, \\
& \frac{-3 x^{4}-9 x^{2}}{x^{3}+9 x^{2}+3 x+27}
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{aligned}
& -3 x^{4} \quad-9 x^{2} \\
& \begin{array}{c}
x^{3}+9 x^{2}+3 x+27 \\
x^{3}+3 x
\end{array}
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{aligned}
& x^{3}-3 x^{2}+x \\
& \mathrm{x}^{2}+3 \quad \mathrm{x}^{5}-3 \mathrm{x}^{4}+4 \mathrm{x}^{3} \quad+3 \mathrm{x}+27 \\
& x^{5}+3 x^{3} \\
& -3 x^{4}+x^{3}+3 x+27 \\
& -3 x^{4} \quad-9 x^{2} \\
& x^{3}+9 x^{2}+3 x+27 \\
& \mathbf{x}^{3} \quad+3 \mathrm{x}
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\left.\right]
$$

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Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{aligned}
& x^{3}-3 x^{2}+x \\
& \mathrm{x}^{2}+3 \quad \mathrm{x}^{5}-3 \mathrm{x}^{4}+4 \mathrm{x}^{3} \quad+3 \mathrm{x}+27 \\
& x^{5}+3 x^{3} \\
& -3 x^{4}+x^{3}+3 x+27 \\
& -3 x^{4} \quad-9 x^{2} \\
& x^{3}+9 x^{2}+3 x+27 \\
& x^{3} \quad+3 x \\
& \mathbf{9 x}^{2} \\
& +27
\end{aligned}
$$

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Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{aligned}
& \left. \right\rvert\, \\
& -3 x^{4}-9 x^{2} \\
& \begin{array}{r}
\begin{array}{c}
\mathbf{x}^{3}+9 x^{2}+3 x+27 \\
\mathbf{x}^{3}+3 x
\end{array} \\
9 \mathbf{x}^{2}+27
\end{array}
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{aligned}
& x^{3}-3 x^{2}+x+9 \\
& \mathrm{x}^{2}+3 \left\lvert\, \begin{array}{ll}
\mathrm{x}^{5}-3 \mathrm{x}^{4}+4 \mathrm{x}^{3} & +3 \mathrm{x}+27
\end{array}\right. \\
& x^{5}+3 x^{3} \\
& -3 x^{4}+x^{3}+3 x+27 \\
& -3 x^{4}-9 x^{2} \\
& x^{3}+9 x^{2}+3 x+27 \\
& \mathbf{x}^{3} \quad+3 x \\
& \mathbf{9 x}^{2} \\
& +27
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{aligned}
& x^{3}-3 x^{2}+x+9 \\
& \begin{array}{l|ll}
x^{2}+3 & x^{5}-3 x^{4}+4 x^{3} & +3 x+27
\end{array} \\
& x^{5}+3 x^{3} \\
& -3 x^{4}+x^{3}+3 x+27 \\
& \frac{-3 x^{4}-9 x^{2}}{x^{3}+9 x^{2}+3 x+27} \\
& \mathbf{x}^{3} \quad+3 \mathrm{x} \\
& \mathbf{9 x}^{2} \\
& +27
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{aligned}
& x^{3}-3 x^{2}+x+9 \\
& \mathrm{x}^{2}+3 \quad \mathrm{x}^{5}-3 \mathrm{x}^{4}+4 \mathrm{x}^{3} \quad+3 \mathrm{x}+27 \\
& \mathrm{x}^{5} \quad+3 \mathrm{x}^{3} \\
& -3 x^{4}+x^{3}+3 x+27 \\
& \frac{-3 x^{4}-9 x^{2}}{x^{3}+9 x^{2}+3 x+27} \\
& \mathbf{x}^{3} \quad+3 \mathrm{x} \\
& \mathbf{9 x}^{2} \\
& +27
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{aligned}
& x^{3}-3 x^{2}+x+9 \\
& \mathrm{x}^{2}+3 \quad \mathrm{x}^{5}-3 \mathrm{x}^{4}+4 \mathrm{x}^{3} \quad+3 \mathrm{x}+27 \\
& \mathrm{x}^{5} \quad+3 \mathrm{x}^{3} \\
& -3 x^{4}+x^{3}+3 x+27 \\
& \frac{-3 x^{4}-9 x^{2}}{x^{3}+9 x^{2}+3 x+27} \\
&
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{aligned}
& x^{3}-3 x^{2}+x+9 \\
& \begin{array}{l|ll}
\mathrm{x}^{2}+3 & \mathrm{x}^{5}-3 \mathrm{x}^{4}+4 \mathrm{x}^{3} & +3 \mathrm{x}+27
\end{array} \\
& x^{5}+3 x^{3} \\
& -3 x^{4}+x^{3}+3 x+27 \\
& \frac{-3 x^{4}-9 x^{2}}{x^{3}+9 x^{2}+3 x+27} \\
&
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{aligned}
& x^{3}-3 x^{2}+x+9 \\
& \mathrm{x}^{2}+3 \left\lvert\, \begin{array}{ll}
\mathrm{x}^{5}-3 \mathrm{x}^{4}+4 \mathrm{x}^{3} & +3 \mathrm{x}+27
\end{array}\right. \\
& x^{5}+3 x^{3} \\
& -3 x^{4}+x^{3}+3 x+27 \\
& -3 x^{4}-9 x^{2} \\
& \mathbf{x}^{3}+9 \mathrm{x}^{2}+3 \mathrm{x}+27 \\
&
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{aligned}
& x^{3}-3 x^{2}+x+9 \\
& \mathrm{x}^{2}+3 \left\lvert\, \begin{array}{ll}
\mathrm{x}^{5}-3 \mathrm{x}^{4}+4 \mathrm{x}^{3} & +3 \mathrm{x}+27
\end{array}\right. \\
& x^{5}+3 x^{3} \\
& -3 x^{4}+x^{3}+3 x+27 \\
& \frac{-3 x^{4}-9 x^{2}}{x^{3}+9 x^{2}+3 x+27} \\
&
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{aligned}
& x^{3}-3 x^{2}+x+9 \\
& \mathrm{x}^{2}+3 \quad \mathrm{x}^{5}-3 \mathrm{x}^{4}+4 \mathrm{x}^{3} \quad+3 \mathrm{x}+27 \\
& x^{5}+3 x^{3} \\
& -3 x^{4}+x^{3}+3 x+27 \\
& \frac{-3 x^{4}-9 x^{2}}{x^{3}+9 x^{2}+3 x+27} \\
&
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{aligned}
& x^{3}-3 x^{2}+x+9 \\
& \mathrm{x}^{2}+3 \quad \mathrm{x}^{5}-3 \mathrm{x}^{4}+4 \mathrm{x}^{3} \quad+3 \mathrm{x}+27 \\
& x^{5}+3 x^{3} \\
& -3 x^{4}+x^{3}+3 x+27 \\
& \frac{-3 x^{4}-9 x^{2}}{x^{3}+9 x^{2}+3 x+27} \\
&
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{aligned}
& x^{3}-3 x^{2}+x+9 \\
& \mathrm{x}^{2}+3 \quad \mathrm{x}^{5}-3 \mathrm{x}^{4}+4 \mathrm{x}^{3} \quad+3 \mathrm{x}+27 \\
& x^{5}+3 x^{3} \\
& -3 x^{4}+x^{3}+3 x+27 \\
& \frac{-3 x^{4}-9 x^{2}}{x^{3}+9 x^{2}+3 x+27} \\
&
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=$

$$
\begin{aligned}
& \\
& \frac{-3 x^{4}-9 x^{2}}{x^{3}+9 x^{2}+3 x+27} \\
&
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=x^{3}-3 x^{2}+x+9$

$$
\begin{aligned}
& \mathrm{x}^{3}-3 \mathrm{x}^{2}+\mathrm{x}+9 \\
& \begin{array}{r|rr}
x^{2}+3 & \begin{array}{rr}
\mathbf{x}^{5}-3 x^{4}+4 x^{3} \\
\mathbf{x}^{5} & +3 x+27 \\
& \\
& -3 x^{4}+x^{3}
\end{array} & +3 x+27
\end{array} \\
& \frac{-3 x^{4}-9 x^{2}}{x^{3}+9 x^{2}+3 x+27}
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
9. $\left(x^{5}-3 x^{4}+4 x^{3}+3 x+27\right) \div\left(x^{2}+3\right)=x^{3}-3 x^{2}+x+9$

$$
\begin{aligned}
& \\
& \frac{-3 x^{4}-9 x^{2}}{x^{3}+9 x^{2}+3 x+27} \\
&
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

$$
\begin{array}{l|l}
x^{3}-4 x^{2}+8 x-8 & x^{6} \\
\hline
\end{array}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

$$
\begin{array}{l|ll}
x^{3}-4 x^{2}+8 x-8 & x^{6} & -64
\end{array}
$$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

$$
\begin{array}{ll}
x^{3}-4 x^{2}+8 x-8 & x^{6} \\
\hline
\end{array}
$$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

$$
\begin{array}{l|ll}
x^{3}-4 x^{2}+8 x-8 & x^{6} & -64
\end{array}
$$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$
$\mathbf{x}^{3}$
$x^{3}-4 x^{2}+8 x-8 \quad x^{6} \quad-64$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

\[

\]

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

\[

\]

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

|  | $x^{3}$ |  |  |  |
| :--- | :--- | :--- | :---: | :---: |
| $x^{3}-4 x^{2}+8 x-8$ | $x^{6}$ | -64 |  |  |

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

|  |  |
| :--- | :--- |
| $x^{3}$ | -64 |

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$
$\mathbf{x}^{3}$

$$
\begin{array}{l|l}
x^{3}-4 x^{2}+8 x-8 & x^{6} \\
x^{6}-4 x^{5} & -64
\end{array}
$$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

\[

\]

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

$$
\begin{array}{l|ll}
x^{3}-4 x^{2}+8 x-8 & x^{3} \\
\cline { 3 - 3 } & x^{6}-4 x^{5}+8 x^{4}-8 x^{3} & -64
\end{array}
$$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

\[

\]

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

$$
\begin{array}{l|l}
x^{3}-4 x^{2}+8 x-8 & x^{6} \\
x^{6}-4 x^{5}+8 x^{4}-8 x^{3} & -64
\end{array}
$$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

\[

\]

Step1: divide:
Step2: multiply:
Step 3: subtract

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Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

\[

\]

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

\[

\]

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

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10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

\[

\]

Step1: divide:
Step2: multiply:
Step 3: subtract

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\[

\]

Step1: divide:
Step2: multiply:
Step 3: subtract

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Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

\[

\]

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

$$
\begin{array}{l|ll}
x^{3}-4 x^{2}+8 x-8 & \begin{array}{l}
x^{6} \\
x^{6} \\
\mathbf{x}^{6}-4 x^{5}+8 x^{4}-8 x^{3}
\end{array} & -64 \\
\cline { 2 - 3 } 4 x^{5}-8 x^{4}+8 x^{3} & -64
\end{array}
$$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

\[

\]

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

$$
\begin{array}{l|ll}
x^{3}-4 x^{2}+8 x-8 & \begin{array}{c}
x^{6} \\
x^{6} \\
x^{6}-4 x^{5}+8 x^{4}-8 x^{3}
\end{array} & -64 \\
\cline { 2 - 3 } 4 x^{5}-8 x^{4}+8 x^{3} & -64
\end{array}
$$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

$$
\begin{array}{r|rc}
x^{3}-4 x^{2}+8 x-8 & x^{3}+4 x^{2} \\
\cline { 2 - 3 } \begin{array}{l}
x^{6} \\
x^{6}-4 x^{5}+8 x^{4}-8 x^{3}
\end{array} & -64 \\
4 x^{5}-8 x^{4}+8 x^{3} & -64
\end{array}
$$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

\[

\]

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

\[

\]

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

\[

\]

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

\[

\]

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

\[

\]

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

$$
\begin{aligned}
& x^{3}+4 x^{2} \\
& \quad-64 \\
& 4 x^{5}-16 x^{4}+32 x^{3}
\end{aligned}
$$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

\[

\]

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

\[

\]

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

\[

\]

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

\[

\]

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

\[

\]

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

$$
\begin{aligned}
& x^{3}+4 x^{2} \\
& \begin{array}{l|ll}
x^{3}-4 x^{2}+8 x-8 & \begin{array}{l}
x^{6} \\
\mathbf{x}^{6}-4 x^{5}+8 x^{4}-8 x^{3}
\end{array} & -64 \\
\cline { 3 - 3 } & \begin{array}{ll}
4 x^{5}-8 x^{4}+8 x^{3} & -64 \\
4 x^{5}-16 x^{4}+32 x^{3}-32 x^{2} & \\
\hline & 8 x^{4}
\end{array} \\
&
\end{array}
\end{aligned}
$$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

\[

\]

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

\[

\]

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

$$
\begin{aligned}
& x^{3}+4 x^{2}
\end{aligned}
$$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

\[

\]

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

Step1: divide:

\[

\]

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

Step1: divide:

$$
x^{3}+4 x^{2}
$$

$$
\begin{array}{l|ll}
\cline { 2 - 3 } x^{3}-4 x^{2}+8 x-8 & \begin{array}{l}
x^{6} \\
x^{6}-4 x^{5}+8 x^{4}-8 x^{3}
\end{array} & -64 \\
\cline { 2 - 3 } & 4 x^{5}-8 x^{4}+8 x^{3} & -64 \\
4 x^{5}-16 x^{4}+32 x^{3}-32 x^{2} & \\
\hline & 8 x^{4}-24 x^{3}+32 x^{2} & -64
\end{array}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

Step1: divide:

| $x^{3}+4 x^{2}+8 x$ |  |
| :---: | :---: |
| $\mathrm{x}^{6}$ | -64 |
| $\mathrm{x}^{6}-4 \mathrm{x}^{5}+8 \mathrm{x}^{4}-8 \mathrm{x}^{3}$ |  |
| $4 \mathrm{x}^{5}-8 \mathrm{x}^{4}+8 \mathrm{x}^{3}$ | - 64 |
| $4 \mathrm{x}^{5}-16 \mathrm{x}^{4}+32 \mathrm{x}^{3}-32 \mathrm{x}^{2}$ |  |
| $8 \mathrm{x}^{4}-24 \mathrm{x}^{3}+32 \mathrm{x}^{2}$ | -64 |

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

\[

\]

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

$$
\begin{aligned}
& x^{3}+4 x^{2}+8 x \\
& \begin{array}{l|ll}
x^{3}-4 x^{2}+8 x-8 & \begin{array}{l}
x^{6} \\
\mathbf{x}^{6}-4 x^{5}+8 x^{4}-8 x^{3}
\end{array} & -64 \\
\cline { 3 - 3 } & 4 x^{5}-8 x^{4}+8 x^{3} & -64 \\
4 x^{5}-16 x^{4}+32 x^{3}-32 x^{2} & \\
\hline 8 x^{4}-24 x^{3}+32 x^{2} & -64
\end{array}
\end{aligned}
$$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

Step1: divide:

| $x^{3}+4 x^{2}+8 x$ |  |
| :---: | :---: |
| $\mathrm{x}^{6}$ | -64 |
| $\mathrm{x}^{6}-4 \mathrm{x}^{5}+8 \mathrm{x}^{4}-8 \mathrm{x}^{3}$ |  |
| $4 \mathrm{x}^{5}-8 \mathrm{x}^{4}+8 \mathrm{x}^{3}$ | -64 |
| $4 x^{5}-16 x^{4}+32 x^{3}-32 x^{2}$ |  |
| $8 \mathrm{x}^{4}-\mathbf{2 4} \mathrm{x}^{3}+32 \mathrm{x}^{2}$ | -64 |

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

Step1: divide:

$$
\begin{aligned}
& x^{3}+4 x^{2}+8 x \\
& 4 x^{5}-16 x^{4}+32 x^{3}-32 x^{2} \\
& 8 x^{4}-24 x^{3}+32 x^{2}-64 \\
& 8 \mathbf{x}^{4}
\end{aligned}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

Step1: divide:

$$
\begin{aligned}
& x^{3}+4 x^{2}+8 x \\
& 4 \mathrm{x}^{5}-16 \mathrm{x}^{4}+32 \mathrm{x}^{3}-32 \mathrm{x}^{2} \\
& 8 x^{4}-24 x^{3}+32 x^{2} \quad-64 \\
& 8 \mathbf{x}^{4}-32 \mathrm{x}^{3}
\end{aligned}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

Step1: divide:

$$
\begin{aligned}
& x^{3}+4 x^{2}+8 x \\
& 4 \mathrm{x}^{5}-16 \mathrm{x}^{4}+32 \mathrm{x}^{3}-32 \mathrm{x}^{2} \\
& 8 x^{4}-24 x^{3}+32 x^{2}-64 \\
& 8 x^{4}-32 x^{3}+64 x^{2}
\end{aligned}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

Step1: divide:

$$
\begin{aligned}
& x^{3}+4 x^{2}+8 x \\
& 4 x^{5}-16 x^{4}+32 x^{3}-32 x^{2} \\
& 8 x^{4}-24 x^{3}+32 x^{2} \quad-64 \\
& 8 x^{4}-32 x^{3}+64 x^{2}-64 x
\end{aligned}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

Step1: divide:

\[

\]

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

Step1: divide:

\[

\]

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

Step1: divide:

\[

\]

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

Step1: divide:

$$
\begin{aligned}
& x^{3}+4 x^{2}+8 x \\
& 4 x^{5}-16 x^{4}+32 x^{3}-32 x^{2} \\
& 8 x^{4}-24 x^{3}+32 x^{2}-64 \\
& 8 x^{4}-32 x^{3}+64 x^{2}-64 x
\end{aligned}
$$

Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

Step1: divide:
Step2: multiply:

$$
\begin{aligned}
& x^{3}+4 x^{2}+8 x \\
& 4 x^{5}-16 x^{4}+32 x^{3}-32 x^{2} \\
& 8 x^{4}-24 x^{3}+32 x^{2} \quad-64 \\
& 8 x^{4}-32 x^{3}+64 x^{2}-64 x \\
& \text { 8x }{ }^{3}
\end{aligned}
$$

Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

Step1: divide:
Step2: multiply:

$$
\begin{aligned}
& x^{3}+4 x^{2}+8 x \\
& 4 x^{5}-16 x^{4}+32 x^{3}-32 x^{2} \\
& 8 x^{4}-24 x^{3}+32 x^{2}-64 \\
& \frac{8 x^{4}-32 x^{3}+64 x^{2}-64 x}{8 x^{3}-32 x^{2}} \\
& \text { 8x } \mathbf{x}^{3}-\mathbf{3 2 x ^ { 2 }}
\end{aligned}
$$

Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

Step1: divide:
Step2: multiply:

$$
\begin{aligned}
& x^{3}+4 x^{2}+8 x \\
& 4 x^{5}-16 x^{4}+32 x^{3}-32 x^{2} \\
& 8 x^{4}-24 x^{3}+32 x^{2} \quad-64 \\
& \frac{8 x^{4}-32 x^{3}+64 x^{2}-64 x}{8 x^{3}-32 x^{2}+64 x}
\end{aligned}
$$

Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

Step1: divide:
Step2: multiply:


Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

$$
4 x^{5}-8 x^{4}+8 x^{3}, \quad-64
$$

$$
4 x^{5}-16 x^{4}+32 x^{3}-32 x^{2}
$$

Step1: divide:
Step2: multiply:

$$
8 x^{4}-24 x^{3}+32 x^{2} \quad-64
$$

$$
8 x^{4}-32 x^{3}+64 x^{2}-64 x
$$

$$
8 x^{3}-32 x^{2}+64 x-64
$$

Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

Step1: divide:
Step2: multiply:

\[

\]

Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

Step1: divide:
Step2: multiply:

\[

\]

Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

$$
\begin{array}{ccc}
x^{3}-4 x^{2}+8 x-8 & \begin{array}{l}
x^{6} \\
x^{6}-4 x^{5}+8 x^{4}-8 x^{3}
\end{array} \\
\cline { 2 - 3 } 4 x^{5}-8 x^{4}+8 x^{3} & -64
\end{array}
$$

$$
4 x^{5}-16 x^{4}+32 x^{3}-32 x^{2}
$$

Step1: divide:
Step2: multiply:

$$
x^{3}+4 x^{2}+8 x+8
$$

$$
8 x^{4}-24 x^{3}+32 x^{2} \quad-64
$$

$$
8 x^{4}-32 x^{3}+64 x^{2}-64 x
$$

$$
8 x^{3}-32 x^{2}+64 x-64
$$

Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

$$
\begin{array}{c|ll}
x^{3}-4 x^{2}+8 x-8 & \begin{array}{l}
x^{6} \\
x^{6}-4 x^{5}+8 x^{4}-8 x^{3}
\end{array} & -64 \\
\cline { 2 - 3 } & 4 x^{5}-8 x^{4}+8 x^{3} & -64
\end{array}
$$

$$
4 x^{5}-16 x^{4}+32 x^{3}-32 x^{2}
$$

Step1: divide:
Step2: multiply:

$$
x^{3}+4 x^{2}+8 x+8
$$

$$
8 x^{4}-24 x^{3}+32 x^{2} \quad-64
$$

$$
8 x^{4}-32 x^{3}+64 x^{2}-64 x
$$

$$
8 x^{3}-32 x^{2}+64 x-64
$$

Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

$$
\begin{array}{c|ll}
x^{3}-4 x^{2}+8 x-8 & \begin{array}{l}
x^{6} \\
x^{6}-4 x^{5}+8 x^{4}-8 x^{3}
\end{array} & -64 \\
\cline { 2 - 3 } & 4 x^{5}-8 x^{4}+8 x^{3} & -64
\end{array}
$$

$$
4 x^{5}-16 x^{4}+32 x^{3}-32 x^{2}
$$

Step1: divide:
Step2: multiply:

$$
x^{3}+4 x^{2}+8 x+8
$$

$$
8 x^{4}-24 x^{3}+32 x^{2} \quad-64
$$

$$
8 x^{4}-32 x^{3}+64 x^{2}-64 x
$$

$$
8 x^{3}-32 x^{2}+64 x-64
$$

Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

Step1: divide:
Step2: multiply:

$$
x^{3}+4 x^{2}+8 x+8
$$

\[

\]

Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

$$
\begin{array}{r|rl}
x^{3}-4 x^{2}+8 x-8 & \begin{array}{l}
x^{6} \\
x^{6}-4 x^{5}+8 x^{4}-8 x^{3}
\end{array} & -64 \\
\cline { 2 - 3 } & 4 x^{5}-8 x^{4}+8 x^{3} & -64
\end{array}
$$

$$
4 x^{5}-16 x^{4}+32 x^{3}-32 x^{2}
$$

Step1: divide:
Step2: multiply:

$$
x^{3}+4 x^{2}+8 x+8
$$

$$
8 x^{4}-24 x^{3}+32 x^{2} \quad-64
$$

$$
8 x^{4}-32 x^{3}+64 x^{2}-64 x
$$

$$
8 x^{3}-32 x^{2}+64 x-64
$$

Step 3: subtract

$$
8 x^{3}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

$$
\begin{array}{l|ll}
x^{3}-4 x^{2}+8 x-8 & \begin{array}{l}
x^{6} \\
x^{6}-4 x^{5}+8 x^{4}-8 x^{3}
\end{array} & -64 \\
\cline { 2 - 3 } & 4 x^{5}-8 x^{4}+8 x^{3} & -64
\end{array}
$$

$$
4 x^{5}-16 x^{4}+32 x^{3}-32 x^{2}
$$

Step1: divide:
Step2: multiply:

$$
x^{3}+4 x^{2}+8 x+8
$$

$$
8 x^{4}-24 x^{3}+32 x^{2} \quad-64
$$

$$
8 x^{4}-32 x^{3}+64 x^{2}-64 x
$$

$$
8 x^{3}-32 x^{2}+64 x-64
$$

Step 3: subtract

$$
8 x^{3}-32 x^{2}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

Step1: divide:
Step2: multiply:

$$
\begin{aligned}
& x^{3}+4 x^{2}+8 x+8 \\
& 4 x^{5}-16 x^{4}+32 x^{3}-32 x^{2} \\
& 8 x^{4}-24 x^{3}+32 x^{2} \quad-64 \\
& 8 x^{4}-32 x^{3}+64 x^{2}-64 x \\
& 8 x^{3}-32 x^{2}+64 x-64 \\
& 8 x^{3}-32 x^{2}+64 x
\end{aligned}
$$

Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

Step1: divide:
Step2: multiply:

\[

\]

Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

Step1: divide:
Step2: multiply:
$8 x^{3}-32 x^{2}+64 x-64$
$8 x^{3}-32 x^{2}+64 x-64$
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

Step1: divide:
Step2: multiply:
$8 x^{3}-32 x^{2}+64 x-64$
$8 x^{3}-32 x^{2}+64 x-64$
Step 3: subtract

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{aligned}
& x^{3}+4 x^{2}+8 x+8 \\
& 4 x^{5}-16 x^{4}+32 x^{3}-32 x^{2} \\
& 8 x^{4}-24 x^{3}+32 x^{2} \quad-64 \\
& 8 x^{4}-32 x^{3}+64 x^{2}-64 x \\
& 8 x^{3}-32 x^{2}+64 x-64 \\
& 8 x^{3}-32 x^{2}+64 x-64
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{aligned}
& x^{3}+4 x^{2}+8 x+8 \\
& 4 x^{5}-16 x^{4}+32 x^{3}-32 x^{2} \\
& 8 x^{4}-24 x^{3}+32 x^{2} \quad-64 \\
& 8 x^{4}-32 x^{3}+64 x^{2}-64 x \\
& 8 x^{3}-32 x^{2}+64 x-64 \\
& \frac{8 x^{3}-32 x^{2}+64 x-64}{0}
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=$

Step1: divide:
Step2: multiply:
Step 3: subtract

$$
\begin{aligned}
& x^{3}+4 x^{2}+8 x+8 \\
& 4 x^{5}-16 x^{4}+32 x^{3}-32 x^{2} \\
& 8 x^{4}-24 x^{3}+32 x^{2}-64 \\
& 8 x^{4}-32 x^{3}+64 x^{2}-64 x \\
& 8 x^{3}-32 x^{2}+64 x-64 \\
& \frac{8 x^{3}-32 x^{2}+64 x-64}{0}
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=x^{3}+4 x^{2}+8 x+8$

$$
\begin{aligned}
& x^{3}+4 x^{2}+8 x+8 \\
& \begin{array}{rlr}
x^{3}-4 x^{2}+8 x-8 & \begin{array}{l}
x^{6} \\
x^{6}-4 x^{5}+8 x^{4}-8 x^{3}
\end{array} & -64 \\
& \begin{array}{cc}
4 x^{5}-8 x^{4}+8 x^{3} \\
4 x^{5}-16 x^{4}+32 x^{3}-32 x^{2} & -64 \\
8 x^{4}-24 x^{3}+32 x^{2} & -64
\end{array}
\end{array} \\
& 8 x^{4}-32 x^{3}+64 x^{2}-64 x \\
& 8 x^{3}-32 x^{2}+64 x-64 \\
& \frac{8 x^{3}-32 x^{2}+64 x-64}{0}
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=x^{3}+4 x^{2}+8 x+8$

$$
\begin{aligned}
& x^{3}+4 x^{2}+8 x+8 \\
& \begin{array}{rlr}
x^{3}-4 x^{2}+8 x-8 & \begin{array}{l}
x^{6} \\
x^{6}-4 x^{5}+8 x^{4}-8 x^{3}
\end{array} & -64 \\
& 4 x^{5}-8 x^{4}+8 x^{3} & -64 \\
& \frac{4 x^{5}-16 x^{4}+32 x^{3}-32 x^{2}}{8 x^{4}-24 x^{3}+32 x^{2}} & -64
\end{array} \\
& 8 x^{4}-32 x^{3}+64 x^{2}-64 x \\
& 8 x^{3}-32 x^{2}+64 x-64 \\
& \frac{8 x^{3}-32 x^{2}+64 x-64}{0}
\end{aligned}
$$

## Algebra I Class Worksheet \#6 Unit 10

Perform the indicated operations. Express your answers in simplest form.
10. $\left(x^{6}-64\right) \div\left(x^{3}-4 x^{2}+8 x-8\right)=x^{3}+4 x^{2}+8 x+8$

$$
x^{3}+4 x^{2}+8 x+8
$$

$$
\begin{array}{l|ll}
x^{3}-4 x^{2}+8 x-8 & x^{6} & -64
\end{array}
$$

Good luck on your homework $!_{!_{4}}$

$$
\begin{array}{r}
4 x^{3}-16 x^{4}+32 x^{3}-32 x^{2}-64 \\
8 x^{4}-24 x^{3}+32 x^{2}-64 \\
8 x^{4}-32 x^{3}+64 x^{2}-64 x \\
\hline 8 x^{3}-32 x^{2}+64 x-64 \\
\frac{8 x^{3}-32 x^{2}+64 x-64}{0}
\end{array}
$$

