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

There is a well known relationship between multiplication and division.

$$3 \cdot 4 = 12$$

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$$12 \div 4 = 3$$

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**Consider powers of x.** 

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

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

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

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If you apply the rule, you get x<sup>0</sup>.

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#### If you apply the rule, you get x<sup>0</sup>.

You also know that any number divided by itself is 1.

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You also know that any number divided by itself is 1. (The exception is  $0 \div 0$ .)  $\uparrow \uparrow \uparrow$ This is undefined.

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

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## You also know that any number divided by itself is 1. (The exception is 0 ÷ 0.)

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

#### If you apply the rule, you get x<sup>0</sup>.

## You also know that any number divided by itself is 1. (The exception is $0 \div 0$ .)

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

Consider this multiplication problem.

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 $(4x^3)(5x^2) =$ 

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 $(4x^3)(5x^2) = 20x^5$ 

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Notice that you **multiply the coefficients** and **add the exponents**.

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## **Dividing Monomials**

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 $20x^5 \div 5x^2 = 4x^3$ 

Notice that you **divide the coefficients** and **subtract the exponents**.

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Notice that you **multiply the coefficients** and **add the exponents**.

Here is a related division problem.

 $20x^5 \div 5x^2 = 4x^3$ 

Notice that you **divide the coefficients** and **subtract the exponents**.

We assume that  $x \neq 0$ , since division by 0 is undefined.

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

1. 
$$(9x^4) \div (3x^3) =$$
\_\_\_\_\_

2. 
$$(-28x^6) \div (7x^2) =$$
\_\_\_\_\_

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

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

1. 
$$(9x^4) \div (3x^3) = 3$$

2. 
$$(-28x^6) \div (7x^2) =$$
\_\_\_\_\_

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

1. 
$$(9x^4) \div (3x^3) = 3x^1$$

2. 
$$(-28x^6) \div (7x^2) =$$
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Perform the indicated operations. Express your answers in simplest form.

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

Here is a related division problem.

Consider this multiplication problem.

 $3x^2(4x^2 - 3x + 6) = 12x^4 - 9x^3 + 18x^2$ 

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Here is a related division problem.

 $(12x^4 - 9x^3 + 18x^2) \div 3x^2 =$ 

# **Dividing a Polynomial by a Monomial** Consider this multiplication problem.

 $3x^2(4x^2 - 3x + 6) = 12x^4 - 9x^3 + 18x^2$ 

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$$(12x^4 - 9x^3 + 18x^2) \div 3x^2 = 4x^2 - 3x^1$$

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$$(12x^4 - 9x^3 + 18x^2) \div 3x^2 = 4x^2 - 3x^1$$

$$x^1 = x^2$$

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# Dividing a Polynomial by a Monomial Consider this multiplication problem. $3x^{2}(4x^{2} - 3x + 6) = 12x^{4} - 9x^{3} + 18x^{2}$

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

Here is a related division problem.

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

# Dividing a Polynomial by a Monomial

Consider this multiplication problem.

 $3x^2(4x^2 - 3x + 6) = 12x^4 - 9x^3 + 18x^2$ 

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

Here is a related division problem.

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

Remember, if  $x \neq 0$ , then  $x^0 = 1$ .

## **Dividing a Polynomial by a Monomial** Consider this multiplication problem.

 $3x^2(4x^2 - 3x + 6) = 12x^4 - 9x^3 + 18x^2$ 

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Here is a related division problem.

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Here is a related division problem.

 $(12x^4 - 9x^3 + 18x^2) \div 3x^2 = 4x^2 - 3x + 6$ 

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

- 3.  $(15x^3 10x^2 + 25x) \div (5x) =$
- 4.  $(54x^4 + 36x^3 27x^2) \div (9x^2) =$

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

3.  $(15x^3 - 10x^2 + 25x) \div (5x) =$ 

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When you divide a polynomial by a monomial, you divide <u>each term</u> of the polynomial by the monomial.

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

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

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 $x^0 = 1$ 

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When you divide a polynomial by a monomial, you divide <u>each term</u> of the polynomial by the monomial.

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

3. 
$$(15x^3 - 10x^2 + 25x^1) \div (5x^1) = 3x^2 - 2x + 5$$
  
 $x^0 = 1$ 

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When you divide a polynomial by a monomial, you divide <u>each term</u> of the polynomial by the monomial.

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When you divide a polynomial by a monomial, you divide <u>each term</u> of the polynomial by the monomial.

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$$(54x^4 + 36x^3 - 27x^2) \div (9x^2) = \underline{6x^2}$$

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3.  $(15x^3 - 10x^2 + 25x) \div (5x) = 3x^2 - 2x + 5$ 

4. 
$$(54x^4 + 36x^3 - 27x^2) \div (9x^2) = 6x^2 + 4x - 3$$

When you divide a polynomial by a monomial, you divide <u>each term</u> of the polynomial by the monomial.

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

3.  $(15x^3 - 10x^2 + 25x) \div (5x) = 3x^2 - 2x + 5$ 

4. 
$$(54x^4 + 36x^3 - 27x^2) \div (9x^2) = \underline{6x^2 + 4x - 3}$$

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

3. 
$$(15x^3 - 10x^2 + 25x) \div (5x) = 3x^2 - 2x + 5$$

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$$(54x^4 + 36x^3 - 27x^2) \div (9x^2) = \underline{6x^2 + 4x - 3}$$

5. 
$$(x^4 - 2x^3 + 3x^2) \div (x^2) =$$
\_\_\_\_\_

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

3. 
$$(15x^3 - 10x^2 + 25x) \div (5x) = 3x^2 - 2x + 5$$

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$$(54x^4 + 36x^3 - 27x^2) \div (9x^2) = \underline{6x^2 + 4x - 3}$$

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$$(x^4 - 2x^3 + 3x^2) \div (x^2) =$$

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

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$$(15x^3 - 10x^2 + 25x) \div (5x) = 3x^2 - 2x + 5$$

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\_\_\_\_\_

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

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$$(54x^4 + 36x^3 - 27x^2) \div (9x^2) = \underline{6x^2 + 4x - 3}$$

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

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$$(x^4 - 2x^3 + 3x^2) \div (x^2) = \underline{x^2 - 2x}$$

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

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5. 
$$(x^4 - 2x^3 + 3x^2) \div (x^2) = x^2 - 2x + 3$$

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

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

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

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

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

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

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

$$2x + 3 \qquad 2x^3 + 13x^2 + 21x + 9$$

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

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

$$2x + 3 \qquad 2x^3 + 13x^2 + 21x + 9$$

Step1: divide:

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

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

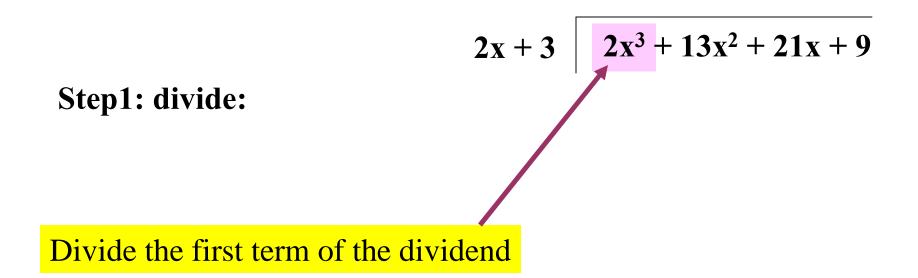
$$2x + 3 \qquad 2x^3 + 13x^2 + 21x + 9$$

Step1: divide:

Divide the first term of the dividend

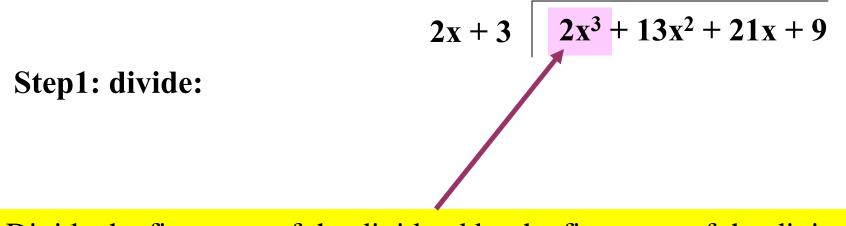
Perform the indicated operations. Express your answers in simplest form.

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



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

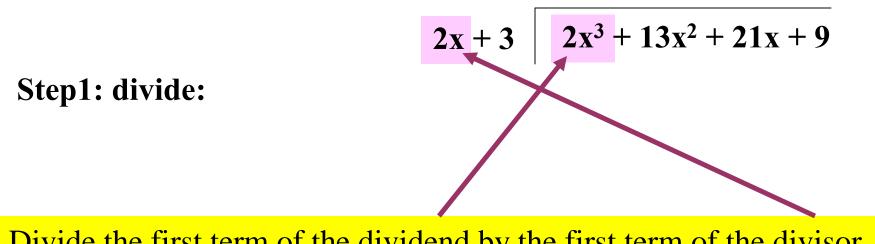
6. 
$$(2x^3 + 13x^2 + 21x + 9) \div (2x + 3) =$$



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

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

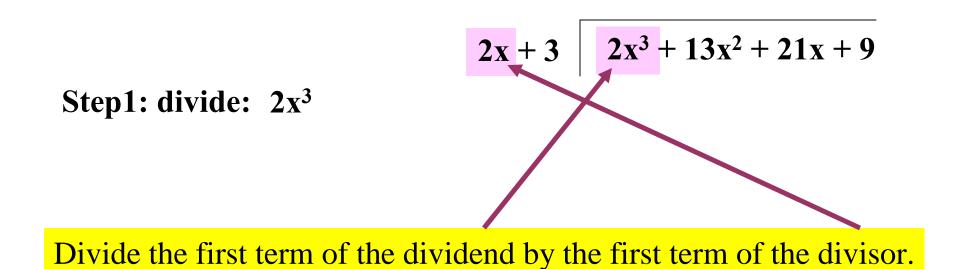
 $(2x^3 + 13x^2 + 21x + 9) \div (2x + 3) =$ 6.



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

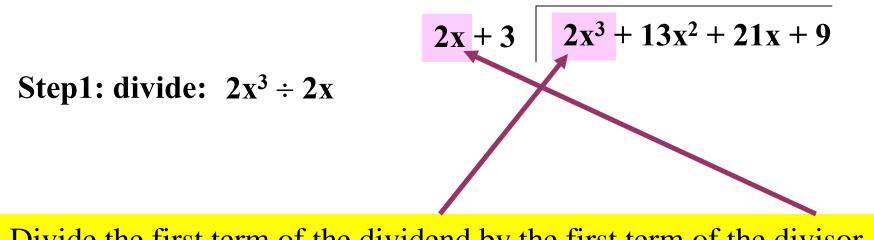
Perform the indicated operations. Express your answers in simplest form.

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



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

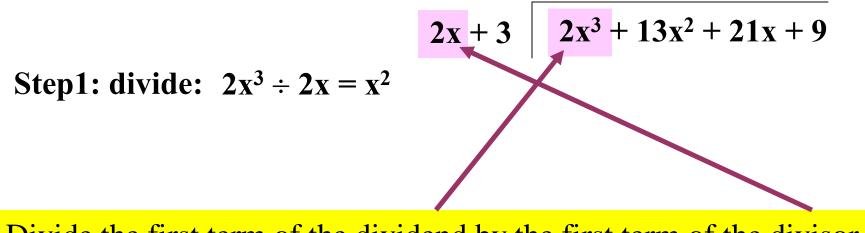
6.  $(2x^3 + 13x^2 + 21x + 9) \div (2x + 3) =$ 



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

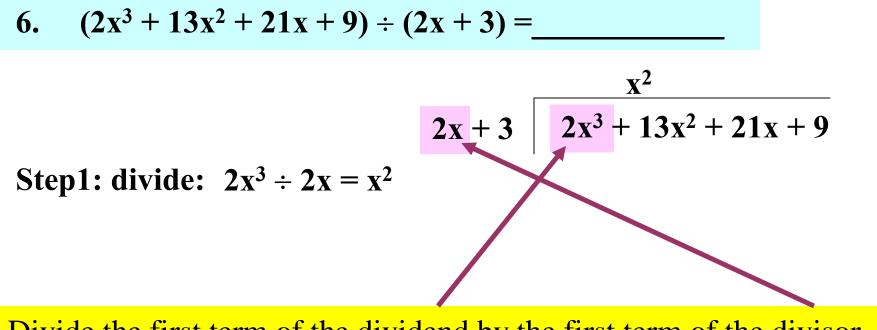
Perform the indicated operations. Express your answers in simplest form.

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



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

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



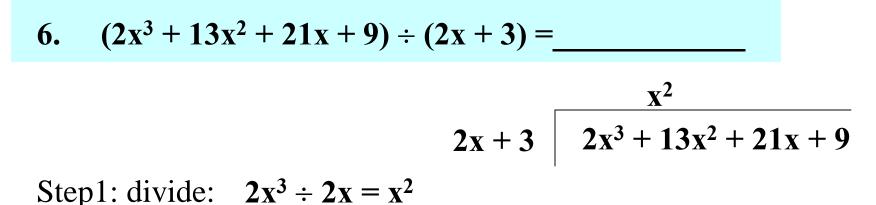
Divide the first term of the dividend by the first term of the divisor.

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

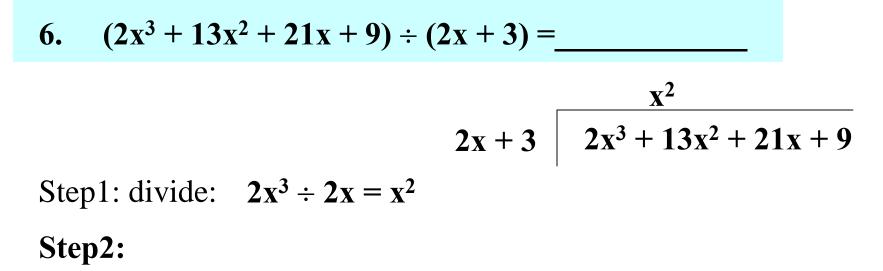
6. 
$$(2x^3 + 13x^2 + 21x + 9) \div (2x + 3) =$$
  
 $2x + 3 \qquad x^2$   
 $2x^3 + 13x^2 + 21x + 9$ 

Step1: divide:  $2x^3 \div 2x = x^2$ 

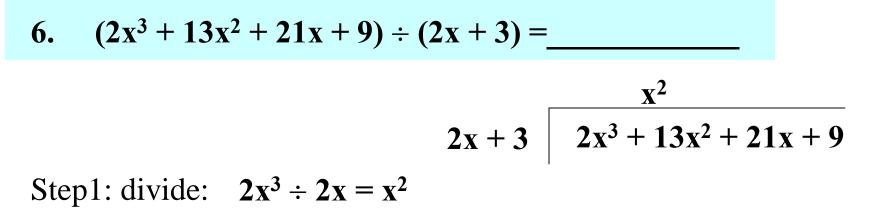
Perform the indicated operations. Express your answers in simplest form.



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

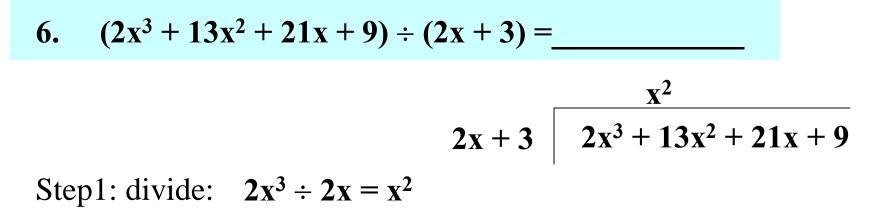


Perform the indicated operations. Express your answers in simplest form.



**Step2: multiply:** 

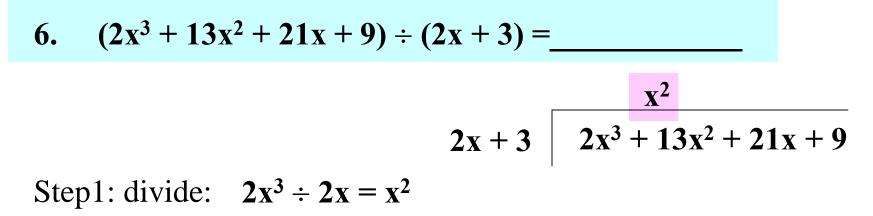
Perform the indicated operations. Express your answers in simplest form.



Step2: multiply:

Multiply the answer you got in step 1

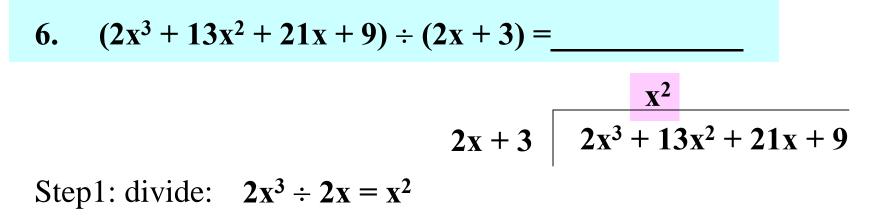
Perform the indicated operations. Express your answers in simplest form.



**Step2: multiply:** 

Multiply the answer you got in step 1

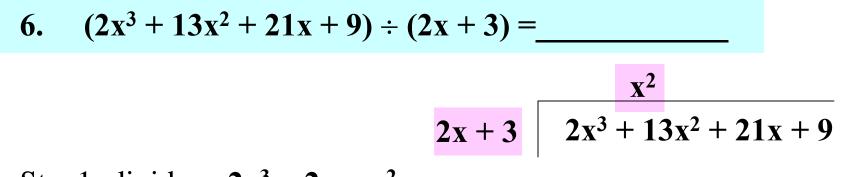
Perform the indicated operations. Express your answers in simplest form.



**Step2: multiply:** 

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

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

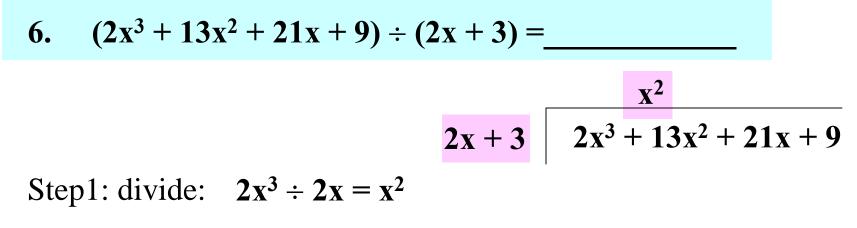


Step1: divide:  $2x^3 \div 2x = x^2$ 

Step2: multiply:

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

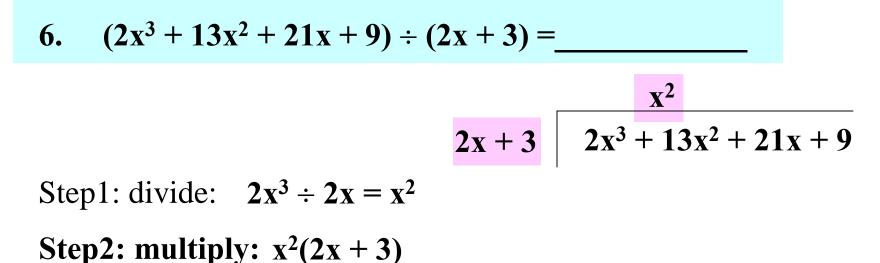
Perform the indicated operations. Express your answers in simplest form.



Step2: multiply: x<sup>2</sup>

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

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



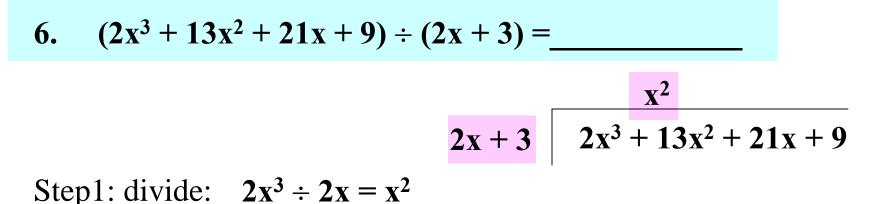
#### Multiply the answer you got in step 1 by the divisor.

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

6. 
$$(2x^3 + 13x^2 + 21x + 9) \div (2x + 3) =$$
  
 $2x + 3$   
 $2x + 3$   
 $2x^3 + 13x^2 + 21x + 9$   
Step1: divide:  $2x^3 \div 2x = x^2$   
Step2: multiply:  $x^2(2x + 3) = 2x^3$ 

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

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



Step2: multiply:  $x^2(2x + 3) = 2x^3 + 3x^2$ 

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

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

6. 
$$(2x^3 + 13x^2 + 21x + 9) \div (2x + 3) =$$
  
 $2x + 3 = \frac{x^2}{2x^3 + 13x^2 + 21x + 9}$   
Step1: divide:  $2x^3 \div 2x = x^2$ 

Step2: multiply:  $x^2(2x + 3) = 2x^3 + 3x^2$ 

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

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

6.  $(2x^3 + 13x^2 + 21x + 9) \div (2x + 3) =$   $2x + 3 \qquad x^2$   $2x + 3 \qquad x^2$   $2x^3 + 13x^2 + 21x + 9$   $2x^3 + 3x^2$ Step1: divide:  $2x^3 \div 2x = x^2$ 

Step2: multiply:  $x^2(2x + 3) = 2x^3 + 3x^2$ 

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

6.  $(2x^3 + 13x^2 + 21x + 9) \div (2x + 3) =$   $2x + 3 \qquad x^2$   $2x + 3 \qquad x^2$ Step1: divide:  $2x^3 \div 2x = x^2$ Step2: multiply:  $x^2(2x + 3) = 2x^3 + 3x^2$ Step 3:

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

6.  $(2x^3 + 13x^2 + 21x + 9) \div (2x + 3) =$   $2x + 3 \qquad x^2$   $2x + 3 \qquad 2x^3 + 13x^2 + 21x + 9$ Step1: divide:  $2x^3 \div 2x = x^2$ Step2: multiply:  $x^2(2x + 3) = 2x^3 + 3x^2$ Step 3: subtract

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

6.  $(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$   $2x + 3 \qquad x^{2}$   $2x + 3 \qquad 2x^{3} + 13x^{2} + 21x + 9$ Step1: divide:  $2x^{3} \div 2x = x^{2}$ Step2: multiply:  $x^{2}(2x + 3) = 2x^{3} + 3x^{2}$ Step 3: subtract

**Subtract the answer from step 2** 

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

6.  $(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$   $2x + 3 \qquad x^{2}$   $2x^{3} + 13x^{2} + 21x + 9$   $2x^{3} + 3x^{2}$ Step1: divide:  $2x^{3} \div 2x = x^{2}$ Step2: multiply:  $x^{2}(2x + 3) = 2x^{3} + 3x^{2}$ Step 3: subtract

**Subtract the answer from step 2** 

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

6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
 $2x + 3 = \frac{x^{2}}{2x^{3} + 13x^{2} + 21x + 9}$   
Step1: divide:  $2x^{3} \div 2x = x^{2}$   
Step2: multiply:  $x^{2}(2x + 3) = 2x^{3} + 3x^{2}$   
Step 3: subtract

Subtract the answer from step 2 from the original dividend.

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

6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
 $2x + 3 \begin{bmatrix} x^{2} \\ 2x^{3} + 13x^{2} + 21x + 9 \\ 2x^{3} + 3x^{2} \end{bmatrix}$   
Step1: divide:  $2x^{3} \div 2x = x^{2}$   
Step2: multiply:  $x^{2}(2x + 3) = 2x^{3} + 3x^{2}$   
Step 3: subtract

Subtract the answer from step 2 from the original dividend.

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

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$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
 $2x + 3 \qquad x^{2}$   
 $2x + 3 \qquad x^{2}$   
 $2x^{3} + 13x^{2} + 21x + 9$   
 $2x^{3} + 3x^{2}$   
Step1: divide:  $2x^{3} \div 2x = x^{2}$   
Step2: multiply:  $x^{2}(2x + 3) = 2x^{3} + 3x^{2}$   
Step 3: subtract

Subtract the answer from step 2 from the original dividend.

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

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$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
 $2x + 3 \begin{bmatrix} x^{2} \\ 2x^{3} + 13x^{2} + 21x + 9 \\ 2x^{3} + 3x^{2} \\ 2x^{3} + 3x^{2} \end{bmatrix}$   
Step1: divide:  $2x^{3} \div 2x = x^{2}$   
Step2: multiply:  $x^{2}(2x + 3) = 2x^{3} + 3x^{2}$   
Step 3: subtract

Subtract the answer from step 2 from the original dividend.

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

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$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
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Step1: divide:  $2x^{3} \div 2x = x^{2}$   
Step2: multiply:  $x^{2}(2x + 3) = 2x^{3} + 3x^{2}$   
Step 3: subtract

Subtract the answer from step 2 from the original dividend.

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

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$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
 $2x + 3 \begin{bmatrix} x^{2} \\ 2x^{3} + 13x^{2} + 21x + 9 \\ 2x^{3} + 3x^{2} \\ x^{3} + 3x^{2} \end{bmatrix}$   
Step1: divide:  $2x^{3} \div 2x = x^{2}$   
Step2: multiply:  $x^{2}(2x + 3) = 2x^{3} + 3x^{2}$   
Step 3: subtract

Subtract the answer from step 2 from the original dividend.

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

6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
 $2x + 3 \begin{bmatrix} x^{2} \\ 2x^{3} + 13x^{2} + 21x + 9 \\ 2x^{3} + 3x^{2} + 21x + 9 \\ 2x^{3} + 3x^{2} \end{bmatrix}$   
Step 1: divide:  $2x^{3} \div 2x = x^{2}$   
Step 2: multiply:  $x^{2}(2x + 3) = 2x^{3} + 3x^{2}$   
Step 3: subtract

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

6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
 $2x + 3 \begin{bmatrix} x^{2} \\ 2x^{3} + 13x^{2} + 21x + 9 \\ 2x^{3} + 3x^{2} \\ 10x^{2} + 21x + 9 \end{bmatrix}$   
Step2: multiply:

Step 3: subtract

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

6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
 $2x + 3 \begin{bmatrix} x^{2} \\ 2x^{3} + 13x^{2} + 21x + 9 \\ 2x^{3} + 3x^{2} \end{bmatrix}$ 

 $10x^2 + 21x + 9$ 

Step1: divide:

Step2: multiply:

Step 3: subtract

#### **Repeat the process.**

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

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

$$\begin{array}{r} x^2 \\ 2x + 3 \overline{\smash{\big)} \begin{array}{c} 2x^3 + 13x^2 + 21x + 9 \\ 2x^3 + 3x^2 \\ \hline 10x^2 + 21x + 9 \end{array}}} \\ \end{array}}$$

Step1: divide:

Step2: multiply:

Step 3: subtract

#### **Repeat the process.**

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

6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
 $2x + 3 \begin{bmatrix} x^{2} \\ 2x^{3} + 13x^{2} + 21x + 9 \\ 2x^{3} + 3x^{2} \\ \hline 10x^{2} + 21x + 9 \end{bmatrix}$   
Step2: multiply:

Step 3: subtract

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

Step 3: subtract

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

6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
2x + 3  $\begin{bmatrix} x^{2} \\ 2x^{3} + 13x^{2} + 21x + 9 \\ 2x^{3} + 3x^{2} \\ 2x^{3} + 3x^{2} \\ 10x^{2} + 21x + 9 \end{bmatrix}$   
Step 2: multiply:  
Step 3: subtract

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

6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
**2x** + 3  $\begin{array}{r} x^{2} + 5x \\ 2x^{3} + 13x^{2} + 21x + 9 \\ 2x^{3} + 3x^{2} \\ \hline 2x^{3} + 3x^{2} \\ \hline 10x^{2} + 21x + 9 \end{array}$   
Step 2: multiply:  
Step 3: subtract

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

6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
Step1: divide:  $10x^{2} \div 2x = 5x$   
Step2: multiply:  
Step 3: subtract  

$$\frac{2x^{3} + 13x^{2} + 21x + 9}{10x^{2} + 21x + 9}$$

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

6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
 $2x + 3 = \frac{x^{2} + 5x}{2x^{3} + 13x^{2} + 21x + 9}$   
Step1: divide:  $10x^{2} \div 2x = 5x = 5x = \frac{2x^{3} + 3x^{2}}{10x^{2} + 21x + 9}$   
Step2: multiply:

Step 3: subtract

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

6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
 $2x + 3 = \frac{x^{2} + 5x}{2x^{3} + 13x^{2} + 21x + 9}$   
Step1: divide:  $10x^{2} \div 2x = 5x = 5x = \frac{10x^{2} + 21x + 9}{10x^{2} + 21x + 9}$   
Step2: multiply: 5x

Step 3: subtract

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

6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
 $2x + 3 = \frac{x^{2} + 5x}{2x^{3} + 13x^{2} + 21x + 9}$   
Step1: divide:  $10x^{2} \div 2x = 5x$   
Step2: multiply:  $5x(2x + 3)$ 

Step 3: subtract

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

6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
 $2x + 3$   
Step1: divide:  $10x^{2} \div 2x = 5x$   
Step2: multiply:  $5x(2x + 3) = 10x^{2}$   
 $x^{2} + 5x$   
 $2x^{3} + 13x^{2} + 21x + 9$   
 $2x^{3} + 3x^{2}$   
 $10x^{2} + 21x + 9$ 

Step 3: subtract

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

6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
 $2x + 3 = \frac{x^{2} + 5x}{2x^{3} + 13x^{2} + 21x + 9}$   
Step1: divide:  $10x^{2} \div 2x = 5x = 5x = \frac{2x^{3} + 3x^{2}}{10x^{2} + 21x + 9}$   
Step2: multiply:  $5x(2x + 3) = 10x^{2} + 15x$ 

Step 3: subtract

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

6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
 $2x + 3 = \frac{x^{2} + 5x}{2x^{3} + 13x^{2} + 21x + 9}$   
Step1: divide:  $10x^{2} \div 2x = 5x$   
Step2: multiply:  $5x(2x + 3) = 10x^{2} + 15x$   
Step 3: subtract

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

6.  $(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$   $2x + 3 \begin{bmatrix} x^{2} + 5x \\ 2x^{3} + 13x^{2} + 21x + 9 \\ 2x^{3} + 3x^{2} \\ 2x^{3} + 3x^{2} \end{bmatrix}$ Step1: divide:  $10x^{2} \div 2x = 5x$ Step2: multiply:  $5x(2x + 3) = 10x^{2} + 15x$ Step 3: subtract

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

6.  $(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$   $2x + 3 \begin{bmatrix} x^{2} + 5x \\ 2x^{3} + 13x^{2} + 21x + 9 \\ 2x^{3} + 3x^{2} \\ 2x^{3} + 3x^{2} \end{bmatrix}$ Step1: divide:  $10x^{2} \div 2x = 5x$ Step2: multiply:  $5x(2x + 3) = 10x^{2} + 15x$   $10x^{2} + 21x + 9$   $10x^{2} + 15x$ Step 3: subtract

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

6.  $(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$   $2x + 3 = \frac{x^{2} + 5x}{2x^{3} + 13x^{2} + 21x + 9}$ Step1: divide:  $10x^{2} \div 2x = 5x$ Step2: multiply:  $5x(2x + 3) = 10x^{2} + 15x$ Step 3: subtract

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

6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
 $2x + 3 = \frac{x^{2} + 5x}{2x^{3} + 13x^{2} + 21x + 9}$   
Step1: divide:  $10x^{2} \div 2x = 5x$   
Step2: multiply:  $5x(2x + 3) = 10x^{2} + 15x$   
Step 3: subtract

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

6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
 $2x + 3 = \frac{x^{2} + 5x}{2x^{3} + 13x^{2} + 21x + 9}$   
Step1: divide:  $10x^{2} \div 2x = 5x$   
Step2: multiply:  $5x(2x + 3) = 10x^{2} + 15x$   
Step 3: subtract  
 $10x^{2} + 21x + 9$   
 $10x^{2} + 21x + 9$   
 $10x^{2} + 15x$   
 $6x$ 

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

6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
 $2x + 3 = \frac{x^{2} + 5x}{2x^{3} + 13x^{2} + 21x + 9}$   
Step1: divide:  $10x^{2} \div 2x = 5x$   
Step2: multiply:  $5x(2x + 3) = 10x^{2} + 15x$   
Step 3: subtract  
 $10x^{2} + 21x + 9$   
 $10x^{2} + 21x + 9$   
 $10x^{2} + 15x$   
 $6x + 9$ 

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

6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
 $2x + 3 \begin{bmatrix} x^{2} + 5x \\ 2x^{3} + 13x^{2} + 21x + 9 \\ 2x^{3} + 3x^{2} \\ 2x^{3} + 3x^{2} \end{bmatrix}$   
Step 1: divide:  $10x^{2} \div 2x = 5x$   
Step 2: multiply:  $5x(2x + 3) = 10x^{2} + 15x$   
Step 3: subtract  
 $10x^{2} + 21x + 9 \\ 10x^{2} + 21x + 9 \\ 10x^{2} + 15x \\ 6x + 9 \end{bmatrix}$ 

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

6. $(2x^3 + 13x^2 + 21x + $	$9)\div(2x+3)=$	
Step1: divide: Step2: multiply:	2x + 3	$   \begin{array}{r} x^2 + 5x \\   \hline     2x^3 + 13x^2 + 21x + 9 \\     2x^3 + 3x^2   \end{array} $
		$\frac{10x^2 + 21x + 9}{10x^2 + 15x}$
Step 3: subtract		6x+9

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

6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
 $2x + 3 = \frac{x^{2} + 5x}{2x^{3} + 13x^{2} + 21x + 9}$   
Step1: divide:  
Step2: multiply:  
Step 3: subtract  
 $10x^{2} + 21x + 9$   
 $10x^{2} + 21x + 9$   
 $10x^{2} + 15x$   
 $6x + 9$ 

#### **Repeat the process.**

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

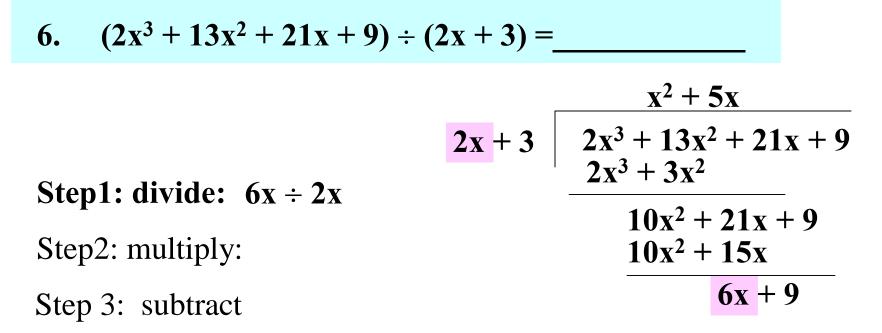
6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
 $2x + 3 = \frac{x^{2} + 5x}{2x^{3} + 13x^{2} + 21x + 9}$   
Step1: divide:  
Step2: multiply:  
Step 3: subtract  
 $10x^{2} + 21x + 9$   
 $10x^{2} + 21x + 9$   
 $10x^{2} + 15x$   
 $6x + 9$ 

#### **Repeat the process.**

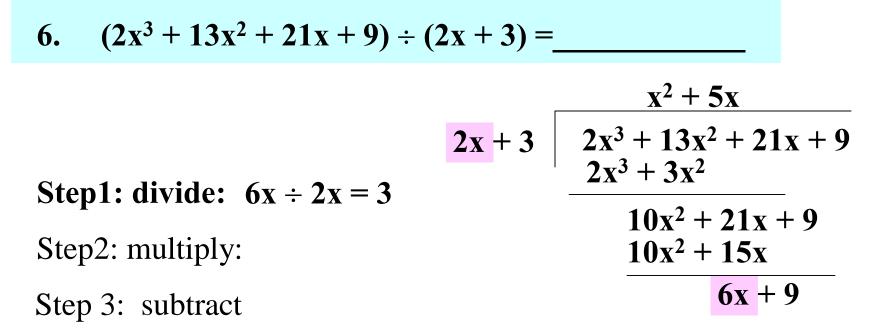
Perform the indicated operations. Express your answers in simplest form.

6. $(2x^3 + 13x^2 + 21x + 9)$	$\dot{x}$	
Step1: divide: 6x	2x + 3	$\frac{x^2 + 5x}{2x^3 + 13x^2 + 21x + 9}$ $\frac{2x^3 + 3x^2}{2x^3 + 3x^2}$
		$10x^2 + 21x + 9$
Step2: multiply:		10x + 21x + y $10x^2 + 15x$
Step 3: subtract		<b>6x + 9</b>

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



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



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

6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
**Step1: divide:**  $6x \div 2x = 3$   
Step2: multiply:  
Step 3: subtract
$$\begin{array}{r} x^{2} + 5x + 3 \\ 2x^{3} + 13x^{2} + 21x + 9 \\ 2x^{3} + 3x^{2} \\ \hline 10x^{2} + 21x + 9 \\ 10x^{2} + 15x \\ \hline 6x + 9 \end{array}$$

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

6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
Step1: divide:  $6x \div 2x = 3$   
Step2: multiply:  
Step 3: subtract
$$\begin{array}{r} x^{2} + 5x + 3 \\ 2x^{3} + 13x^{2} + 21x + 9 \\ 2x^{3} + 3x^{2} \\ \hline 10x^{2} + 21x + 9 \\ 10x^{2} + 15x \\ \hline 6x + 9 \end{array}$$

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

6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
Step1: divide:  $6x \div 2x = 3$   
Step2: multiply:  
Step 3: subtract
$$\begin{array}{r} x^{2} + 5x + 3 \\ 2x^{3} + 13x^{2} + 21x + 9 \\ 2x^{3} + 3x^{2} \\ \hline 10x^{2} + 21x + 9 \\ 10x^{2} + 15x \\ \hline 6x + 9 \end{array}$$

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

6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
Step1: divide:  $6x \div 2x = 3$   
Step 2: multiply: 3  
Step 3: subtract
$$\begin{array}{r} x^{2} + 5x + 3 \\ 2x^{3} + 13x^{2} + 21x + 9 \\ 2x^{3} + 3x^{2} \\ \hline 10x^{2} + 21x + 9 \\ 10x^{2} + 15x \\ \hline 6x + 9 \end{array}$$

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

6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
Step1: divide:  $6x \div 2x = 3$   
Step2: multiply:  $3(2x + 3) =$   
Step 3: subtract  

$$\frac{2x + 3}{2x^{3} + 13x^{2} + 21x + 9}{\frac{2x^{3} + 3x^{2}}{10x^{2} + 21x + 9}}{\frac{10x^{2} + 21x + 9}{6x + 9}}$$

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

6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
 $2x + 3$   
 $2x + 3$   
 $2x + 3$   
 $2x^{3} + 13x^{2} + 21x + 9$   
 $2x^{3} + 3x^{2}$   
 $2x^{3} + 3x^{2}$   
 $2x^{3} + 3x^{2}$   
 $10x^{2} + 21x + 9$   
 $10x^{2} + 21x + 9$   
 $10x^{2} + 15x$   
 $6x + 9$ 

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

6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
 $2x + 3$   
 $2x + 3$   
 $2x + 3$   
 $2x^{3} + 13x^{2} + 21x + 9$   
 $2x^{3} + 13x^{2} + 21x + 9$   
 $2x^{3} + 3x^{2}$   
 $2x^{3} + 3x^{2}$   
 $10x^{2} + 21x + 9$   
 $10x^{2} + 21x + 9$   
 $10x^{2} + 15x$   
 $6x + 9$ 

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

6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
 $2x + 3$   
 $2x + 3$   
 $2x + 3$   
 $2x^{3} + 13x^{2} + 21x + 9$   
 $2x^{3} + 3x^{2}$   
 $2x^{3} + 3x^{2}$   
 $2x^{3} + 3x^{2}$   
 $10x^{2} + 21x + 9$   
 $10x^{2} + 21x + 9$   
 $10x^{2} + 15x$   
 $6x + 9$   
 $6x + 9$   
 $6x + 9$ 

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

6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
 $2x + 3$   
 $2x + 3$   
 $2x + 3$   
 $2x^{3} + 13x^{2} + 21x + 9$   
 $2x^{3} + 3x^{2}$   
 $2x^{3} + 3x^{2}$   
 $2x^{3} + 3x^{2}$   
 $2x^{3} + 3x^{2}$   
 $10x^{2} + 21x + 9$   
 $10x^{2} + 21x + 9$   
 $10x^{2} + 15x$   
 $6x + 9$   
 $6x + 9$   
 $6x + 9$ 

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

6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
 $2x + 3 = \begin{bmatrix} x^{2} + 5x + 3 \\ 2x^{3} + 13x^{2} + 21x + 9 \\ 2x^{3} + 3x^{2} \end{bmatrix}$   
Step1: divide:  $6x \div 2x = 3$   
Step2: multiply:  $3(2x + 3) = 6x + 9$   
Step 3: subtract  
 $10x^{2} + 21x + 9 \\ 10x^{2} + 15x \\ 6x + 9 \\ 6x + 9 \end{bmatrix}$ 

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

6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
 $2x + 3 = 2x + 3 = 2x^{3} + 13x^{2} + 21x + 9$   
Step1: divide:  $6x \div 2x = 3$   
Step2: multiply:  $3(2x + 3) = 6x + 9$   
Step 3: subtract  $6x + 9$   
 $6x + 9$   
 $6x + 9$   
 $6x + 9$   
 $6x + 9$ 

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

6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
 $2x + 3 = \frac{x^{2} + 5x + 3}{2x^{3} + 13x^{2} + 21x + 9}$   
Step1: divide:  $6x \div 2x = 3$   
Step2: multiply:  $3(2x + 3) = 6x + 9$   
Step 3: subtract  
 $6x + 9$   
 $6x + 9$   
 $6x + 9$   
 $0$ 

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

6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) =$$
  
 $2x + 3 = \frac{x^{2} + 5x + 3}{2x^{3} + 13x^{2} + 21x + 9}$   
Step1: divide:  $6x \div 2x = 3$   
Step2: multiply:  $3(2x + 3) = 6x + 9$   
Step 3: subtract  
 $10x^{2} + 21x + 9$   
 $10x^{2} + 15x$   
 $6x + 9$   
 $6x + 9$   
 $0$ 

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

6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) = x^{2} + 5x + 3$$
  
 $2x + 3 = x^{2} + 5x + 3$   
 $2x + 3 = 2x^{3} + 13x^{2} + 21x + 9$   
 $2x^{3} + 3x^{2} = 2x^{3} + 3x^{3} = 2x^{3} = 2x^{3} + 3x^{3} = 2x^{3} = 2x^{3} + 3x^{3} = 2x^{3} + 3x^{3} = 2x^{3} = 2x^{3} + 3x^{3} = 2x^{3} = 2x^{3} = 2x^{3} + 3x^{3} = 2x^{3} = 2x^{3}$ 

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

6. 
$$(2x^{3} + 13x^{2} + 21x + 9) \div (2x + 3) = \underline{x^{2} + 5x + 3}$$
  
 $2x + 3 = \underline{x^{2} + 5x + 3}$   
 $2x + 3 = 2x^{3} + 13x^{2} + 21x + 9$   
 $2x^{3} + 3x^{2} + 21x + 9$   
 $2x^{3} + 3x^{2} + 21x + 9$   
 $2x^{3} + 3x^{2} + 21x + 9$   
 $10x^{2} + 21x + 9$   
 $10x^{2} + 15x + 3$   
Step 3: subtract  
 $6x + 9$   
 $6x + 9$   
 $6x + 9$   
 $0$ 

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

7.  $(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$ 

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

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$

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

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$

$$x^2 + 2x - 3 \qquad 2x^4 + 5x^3 - 6x^2 - 7x + 6$$

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

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$

$$x^2 + 2x - 3$$
  $2x^4 + 5x^3 - 6x^2 - 7x + 6$ 

Step1: divide:

Step2: multiply:

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

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$

$$x^2 + 2x - 3$$
  $2x^4 + 5x^3 - 6x^2 - 7x + 6$ 

Step1: divide:

Step2: multiply:

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

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$

$$x^2 + 2x - 3 \qquad 2x^4 + 5x^3 - 6x^2 - 7x + 6$$

Step1: divide:

Step2: multiply:

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

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$
  
 $x^2 + 2x - 3$ 
 $2x^4 + 5x^3 - 6x^2 - 7x + 6$ 

Step1: divide:

Step2: multiply:

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

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$
  
 $x^2 + 2x - 3$   $2x^2 =$   
Step 1: divide:

Supr. urviue.

Step2: multiply:

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

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$
  
 $x^2 + 2x - 3$   $2x^2$   
 $x^2 + 2x - 3$   $2x^4 + 5x^3 - 6x^2 - 7x + 6$ 

Step1: divide:

#### **Step2: multiply:**

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

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$
  
 $x^2 + 2x - 3$ 
 $2x^2$ 
 $2x^4 + 5x^3 - 6x^2 - 7x + 6$ 

Step1: divide:

#### **Step2: multiply:**

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

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$
  
 $x^2 + 2x - 3$ 
 $2x^2$   
 $x^2 + 2x - 3$ 
 $2x^4 + 5x^3 - 6x^2 - 7x + 6$ 

Step1: divide:

#### **Step2: multiply:**

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

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$
  
 $x^2 + 2x - 3$ 
 $2x^2$   
 $x^2 + 2x - 3$ 
 $2x^4 + 5x^3 - 6x^2 - 7x + 6$   
 $2x^4 + 4x^3$ 

Step1: divide:

#### **Step2: multiply:**

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

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$
  
 $x^2 + 2x - 3$ 

$$2x^2$$

$$2x^4 + 5x^3 - 6x^2 - 7x + 6$$

$$2x^4 + 4x^3 - 6x^2$$

Step1: divide:

#### **Step2: multiply:**

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

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$
  
 $x^2 + 2x - 3 \qquad \frac{2x^2}{2x^4 + 5x^3 - 6x^2 - 7x + 6}$   
Step 1: divide:

Step1: divide:

Step2: multiply:

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

Step1: divide:

Step2: multiply:

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

Step1: divide:

Step2: multiply:

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

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$
  
 $x^2 + 2x - 3$ 

$$2x^2$$

$$2x^4 + 5x^3 - 6x^2 - 7x + 6$$
Step 1: divide:

Step1: divide:

Step2: multiply:

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

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$
  
 $x^2 + 2x - 3$ 

$$x^2 + 2x - 3$$

$$2x^2 - 7x + 6$$

$$2x^4 + 5x^3 - 6x^2 - 7x + 6$$

$$2x^4 + 4x^3 - 6x^2$$
Step1: divide:
$$x^3$$

Step2: multiply:

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

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$
  
 $x^2 + 2x - 3$ 

$$x^2 + 2x - 3$$

$$2x^4 + 5x^3 - 6x^2 - 7x + 6$$

$$2x^4 + 4x^3 - 6x^2$$
Step1: divide:
$$x^3 - 7x$$

Step2: multiply:

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

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$
  
 $x^2 + 2x - 3$ 

$$x^2 + 2x - 3$$

$$2x^2 - 7x + 6$$

$$2x^4 + 5x^3 - 6x^2 - 7x + 6$$

$$2x^4 + 4x^3 - 6x^2$$
Step1: divide:
$$x^3 - 7x + 6$$

Step2: multiply:

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

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$
  
 $x^2 + 2x - 3$ 

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

Step2: multiply:

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

Step2: multiply:

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

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$
  
 $x^2 + 2x - 3$ 

$$2x^2$$

$$2x^4 + 5x^3 - 6x^2 - 7x + 6$$

$$2x^4 + 4x^3 - 6x^2$$
Step 2: multiply:
$$x^3 - 7x + 6$$

Step2: multiply:

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

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$
  
 $x^2 + 2x - 3$ 

$$x^2 + 2x - 3$$

$$2x^4 + 5x^3 - 6x^2 - 7x + 6$$

$$2x^4 + 4x^3 - 6x^2$$
Step 2: multiply:
$$x^3 - 7x + 6$$

S

Step2: multiply:

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

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$
  
 $x^2 + 2x - 3$ 

$$x^2 + 2x - 3$$

$$2x^2 + x$$

$$2x^4 + 5x^3 - 6x^2 - 7x + 6$$

$$2x^4 + 4x^3 - 6x^2$$
Step 2: multiply:

Step2: multiply:

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

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$
  
 $x^2 + 2x - 3$ 

$$x^2 + 2x - 3$$

$$2x^4 + 5x^3 - 6x^2 - 7x + 6$$

$$2x^4 + 4x^3 - 6x^2$$
Step1: divide:
$$x^3 - 7x + 6$$

#### **Step2: multiply:**

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

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$
  
 $x^2 + 2x - 3$ 

$$x^2 + 2x - 3$$

$$2x^4 + 5x^3 - 6x^2 - 7x + 6$$

$$2x^4 + 4x^3 - 6x^2$$
Step1: divide:
$$x^3 - 7x + 6$$

#### **Step2: multiply:**

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

7. 
$$(2x^{4} + 5x^{3} - 6x^{2} - 7x + 6) \div (x^{2} + 2x - 3) =$$
  
 $x^{2} + 2x - 3$   
Step1: divide:  
Step2: multiply:  
 $x^{2} + 2x - 3$   
 $x^{2} + 5x^{3} - 6x^{2} - 7x + 6$   
 $x^{3} - 7x + 6$ 

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

7. 
$$(2x^{4} + 5x^{3} - 6x^{2} - 7x + 6) \div (x^{2} + 2x - 3) =$$
  
 $x^{2} + x$   
 $x^{2} + 2x - 3$   
 $2x^{4} + 5x^{3} - 6x^{2} - 7x + 6$   
 $2x^{4} + 4x^{3} - 6x^{2}$   
Step1: divide:  
 $x^{3} - 7x + 6$   
 $x^{3} + 2x^{2}$ 

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

7. 
$$(2x^{4} + 5x^{3} - 6x^{2} - 7x + 6) \div (x^{2} + 2x - 3) =$$
  
 $x^{2} + 2x - 3$ 

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

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

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

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

$$x^{3} - 7x + 6$$

$$x^{3} - 7x + 6$$

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

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

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$
  
 $x^2 + 2x - 3$ 

$$x^2 + 2x - 3$$

$$2x^2 + x$$

$$2x^4 + 5x^3 - 6x^2 - 7x + 6$$

$$2x^4 + 4x^3 - 6x^2$$
Step1: divide:  
 $x^3 - 7x + 6$ 

$$x^3 + 2x^2 - 3x$$

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

7. 
$$(2x^{4} + 5x^{3} - 6x^{2} - 7x + 6) \div (x^{2} + 2x - 3) =$$
  
 $x^{2} + 2x - 3$ 

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

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

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

$$2x^{4} + 4x^{3} - 6x^{2}$$
Step1: divide:
$$x^{3} - 7x + 6$$

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

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

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$
  
 $x^2 + 2x - 3$ 

$$x^2 + 2x - 3$$

$$x^3 - 6x^2 - 7x + 6$$

$$x^3 - 7x + 6$$

$$x^3 + 2x^2 - 3x$$

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

7. 
$$(2x^{4} + 5x^{3} - 6x^{2} - 7x + 6) \div (x^{2} + 2x - 3) =$$
  
 $x^{2} + 2x - 3$ 

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

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

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

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

$$x^{3} - 7x + 6$$

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

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$
  
 $x^2 + 2x - 3$ 

$$x^2 + 2x - 3$$

$$2x^2 + x$$

$$2x^4 + 5x^3 - 6x^2 - 7x + 6$$

$$2x^4 + 4x^3 - 6x^2$$
Step 1: divide:  
Step 2: multiply:  
Step 3: subtract
$$x^3 - 7x + 6$$

$$x^3 + 2x^2 - 3x$$

$$-2x^2$$

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$
  
 $x^2 + 2x - 3$ 

$$x^2 + 2x - 3$$

$$2x^2 + x$$

$$2x^4 + 5x^3 - 6x^2 - 7x + 6$$

$$2x^4 + 4x^3 - 6x^2$$
Step 1: divide:  
Step 2: multiply:  
Step 3: subtract
$$x^3 - 7x + 6$$

$$x^3 + 2x^2 - 3x$$

$$-2x^2 - 4x$$

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$
  
 $x^2 + 2x - 3$ 

$$x^2 + 2x - 3$$

$$2x^2 + x$$

$$2x^4 + 5x^3 - 6x^2 - 7x + 6$$

$$2x^4 + 4x^3 - 6x^2$$
Step 1: divide:
$$x^3 - 7x + 6$$

$$x^3 + 2x^2 - 3x$$

$$-2x^2 - 4x + 6$$

7. 
$$(2x^{4} + 5x^{3} - 6x^{2} - 7x + 6) \div (x^{2} + 2x - 3) =$$
  
 $x^{2} + 2x - 3$ 

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

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

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

$$2x^{4} + 4x^{3} - 6x^{2}$$
Step 1: divide:  
Step 2: multiply:  
Step 3: subtract
$$x^{3} - 7x + 6$$

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

$$-2x^{2} - 4x + 6$$

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$
  
 $x^2 + 2x - 3$ 
  
 $x^2 + 2x - 3$ 
  
 $2x^2 + x$ 
  
 $2x^4 + 5x^3 - 6x^2 - 7x + 6$ 
  
 $2x^4 + 4x^3 - 6x^2$ 
  
 $x^3 - 7x + 6$ 
  
 $x^3 + 2x^2 - 3x$ 
  
 $-2x^2 - 4x + 6$ 

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$
  
 $x^2 + 2x - 3$ 
  
 $x^2 + 2x - 3$ 
  
 $2x^2 + x$ 
  
 $2x^4 + 5x^3 - 6x^2 - 7x + 6$ 
  
 $2x^4 + 4x^3 - 6x^2$ 
  
 $x^3 - 7x + 6$ 
  
 $x^3 + 2x^2 - 3x$ 
  
Step 3: subtract
  
 $-2x^2 - 4x + 6$ 

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$
  
 $x^2 + 2x - 3$ 
  
 $x^2 + 2x - 3$ 
  
 $2x^2 + x - 2$ 
  
 $2x^4 + 5x^3 - 6x^2 - 7x + 6$ 
  
 $2x^4 + 4x^3 - 6x^2$ 
  
 $x^3 - 7x + 6$ 
  
 $x^3 + 2x^2 - 3x$ 
  
Step 3: subtract
  
 $-2x^2 - 4x + 6$ 

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$
  
 $x^2 + 2x - 3$ 
  
 $x^2 + 2x - 3$ 
  
 $2x^2 + x - 2$ 
  
 $2x^4 + 5x^3 - 6x^2 - 7x + 6$ 
  
 $2x^4 + 4x^3 - 6x^2$ 
  
 $x^3 - 7x + 6$ 
  
 $x^3 + 2x^2 - 3x$ 
  
Step 3: subtract
  
 $-2x^2 - 4x + 6$ 

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$
  
 $x^2 + 2x - 3$ 
  
Step1: divide:
  
Step2: multiply:
  
Step 3: subtract
  
7.  $(2x^4 + 5x^3 - 6x^2 - 7x + 6)$   
 $x^2 + 2x - 3$ 
  
 $x^3 - 7x + 6$   
 $x^3 + 2x^2 - 3x$   
 $-2x^2 - 4x + 6$ 

7. 
$$(2x^{4} + 5x^{3} - 6x^{2} - 7x + 6) \div (x^{2} + 2x - 3) =$$
  
 $x^{2} + 2x - 3$   
Step1: divide:  
Step2: multiply:  
Step 3: subtract  
 $2x^{4} + 5x^{3} - 6x^{2} - 7x + 6$   
 $x^{3} - 7x + 6$   
 $x^{3} + 2x^{2} - 3x$   
 $-2x^{2} - 4x + 6$ 

7. 
$$(2x^{4} + 5x^{3} - 6x^{2} - 7x + 6) \div (x^{2} + 2x - 3) =$$
  
 $x^{2} + 2x - 3$   
Step 1: divide:  
Step 2: multiply:  
Step 3: subtract  
 $2x^{4} + 5x^{3} - 6x^{2} - 7x + 6$   
 $x^{3} - 7x + 6$   
 $x^{3} - 7x + 6$   
 $x^{3} + 2x^{2} - 3x$   
 $-2x^{2} - 4x + 6$   
 $-2x^{2}$ 

7. 
$$(2x^{4} + 5x^{3} - 6x^{2} - 7x + 6) \div (x^{2} + 2x - 3) =$$
  
 $x^{2} + 2x - 3$ 

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

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

$$2x^{4} + 4x^{3} - 6x^{2}$$
Step 1: divide:  
Step 2: multiply:  
Step 3: subtract
$$x^{3} - 7x + 6$$

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

$$-2x^{2} - 4x + 6$$

$$-2x^{2} - 4x$$

7. 
$$(2x^{4} + 5x^{3} - 6x^{2} - 7x + 6) \div (x^{2} + 2x - 3) =$$
  
 $x^{2} + 2x - 3$   
Step1: divide:  
Step2: multiply:  
Step 3: subtract  
 $x^{2} + 2x - 3$   
 $x^{3} - 7x + 6$   
 $x^{3} - 7x + 6$   
 $x^{3} + 2x^{2} - 3x$   
 $-2x^{2} - 4x + 6$   
 $-2x^{2} - 4x + 6$ 

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$
  
 $x^2 + 2x - 3$ 

$$\begin{array}{r} 2x^2 + x - 2 \\ 2x^4 + 5x^3 - 6x^2 - 7x + 6 \\ 2x^4 + 4x^3 - 6x^2 \end{array}$$
Step 1: divide:
$$\begin{array}{r} x^3 & -7x + 6 \\ x^3 + 2x^2 - 3x \\ \hline -2x^2 - 4x + 6 \\ -2x^2 - 4x + 6 \end{array}$$

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$
  
 $x^2 + 2x - 3$ 

$$x^2 + 2x - 3$$

$$2x^4 + 5x^3 - 6x^2 - 7x + 6$$

$$2x^4 + 4x^3 - 6x^2$$
Step 1: divide:  
Step 2: multiply:  
Step 3: subtract
$$x^3 - 7x + 6$$

$$x^3 + 2x^2 - 3x$$

$$-2x^2 - 4x + 6$$

$$-2x^2 - 4x + 6$$

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$
  
 $x^2 + 2x - 3$ 

$$\begin{array}{r} 2x^2 + x - 2 \\ 2x^4 + 5x^3 - 6x^2 - 7x + 6 \\ 2x^4 + 4x^3 - 6x^2 \end{array}$$
Step 1: divide:
$$\begin{array}{r} x^3 & -7x + 6 \\ x^3 + 2x^2 - 3x \end{array}$$
Step 3: subtract
$$\begin{array}{r} -2x^2 - 4x + 6 \\ -2x^2 - 4x + 6 \end{array}$$

7. 
$$(2x^4 + 5x^3 - 6x^2 - 7x + 6) \div (x^2 + 2x - 3) =$$
  
 $x^2 + 2x - 3$ 

$$x^2 + 2x - 3$$

$$2x^4 + 5x^3 - 6x^2 - 7x + 6$$

$$2x^4 + 4x^3 - 6x^2$$
Step 1: divide:  
Step 2: multiply:  
Step 3: subtract
$$x^3 - 7x + 6$$

$$x^3 + 2x^2 - 3x$$

$$-2x^2 - 4x + 6$$

$$-2x^2 - 4x + 6$$

7. 
$$(2x^{4} + 5x^{3} - 6x^{2} - 7x + 6) \div (x^{2} + 2x - 3) =$$
  
 $x^{2} + 2x - 3$ 

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

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

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

$$2x^{4} + 4x^{3} - 6x^{2}$$
Step 1: divide:  
Step 2: multiply:  
Step 3: subtract
$$x^{3} - 7x + 6$$

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

$$-2x^{2} - 4x + 6$$

$$-2x^{2} - 4x + 6$$

$$0$$

7. 
$$(2x^{4} + 5x^{3} - 6x^{2} - 7x + 6) \div (x^{2} + 2x - 3) =$$
  
 $x^{2} + 2x - 3$ 

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

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

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

$$2x^{4} + 4x^{3} - 6x^{2}$$
Step 1: divide:
$$x^{3} - 7x + 6$$

$$x^{3} + 2x^{2} - 3x$$
Step 3: subtract
$$-2x^{2} - 4x + 6$$

$$-2x^{2} - 4x + 6$$

$$0$$

7. 
$$(2x^{4} + 5x^{3} - 6x^{2} - 7x + 6) \div (x^{2} + 2x - 3) = \underline{2x^{2} + x - 2}$$
  
 $x^{2} + 2x - 3$ 

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

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

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

$$x^{3} - 7x + 6$$

$$x^{3} + 2x^{2} - 3x$$
Step 3: subtract
$$x^{2} + 2x - 3$$

$$x^{2} - 2x^{2} - 4x + 6$$

$$-2x^{2} - 4x + 6$$

$$x^{2} - 2x^{2} - 4x + 6$$

7.

$$(2x^{4} + 5x^{3} - 6x^{2} - 7x + 6) \div (x^{2} + 2x - 3) = \underline{2x^{2} + x - 2}$$

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

$$\underline{2x^{4} + 4x^{3} - 6x^{2}}$$

$$\underline{x^{3} - 7x + 6}$$

$$\underline{x^{3} + 2x^{2} - 3x}$$

$$\underline{-2x^{2} - 4x + 6}$$

$$\underline{0}$$

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

$$5x-2 \quad 5x^4 + 13x^3 - 26x^2 + 18x - 4$$

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

$$5x-2 \quad 5x^4 + 13x^3 - 26x^2 + 18x - 4$$

Step1: divide:

Step2: multiply:

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

$$5x-2 \quad 5x^4 + 13x^3 - 26x^2 + 18x - 4$$

Step1: divide:

Step2: multiply:

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

$$5x-2 \quad 5x^4 + 13x^3 - 26x^2 + 18x - 4$$

Step1: divide:

Step2: multiply:

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

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

Step1: divide:

Step2: multiply:

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

$$\frac{x^3}{5x-2} \quad 5x^4 + 13x^3 - 26x^2 + 18x - 4$$

Step1: divide:

Step2: multiply:

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

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

Step1: divide:

#### **Step2: multiply:**

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

8. 
$$(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$$
  

$$x^3$$

$$5x - 2 \quad 5x^4 + 13x^3 - 26x^2 + 18x - 4$$

Step1: divide:

#### **Step2: multiply:**

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

8. 
$$(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$$
  

$$5x - 2 \quad 5x^4 + 13x^3 - 26x^2 + 18x - 4$$
Set  $1 - 1$ 

Step1: divide:

#### **Step2: multiply:**

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$  $5x - 2 \begin{bmatrix} x^3 \\ 5x^4 + 13x^3 - 26x^2 + 18x - 4 \\ 5x^4 - 2x^3 \end{bmatrix}$ 

Step1: divide:

#### **Step2: multiply:**

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

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

Step1: divide:

Step2: multiply:

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

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

Step1: divide:

Step2: multiply:

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

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

Step1: divide:

Step2: multiply:

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

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

Step1: divide:

Step2: multiply:

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

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

Step1: divide:

Step2: multiply:

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

$$\begin{array}{r} x^{3} \\
5x-2 \overline{\smash{\big)}5x^{4}+13x^{3}-26x^{2}+18x-4} \\
5x^{4}-2x^{3} \\
15x^{3}-26x^{2} \\
\end{array}$$

Step1: divide:

Step2: multiply:

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

$$\begin{array}{r} x^{3} \\
5x-2 \overline{\smash{\big|}\ 5x^{4}+13x^{3}-26x^{2}+18x-4} \\
5x^{4}-2x^{3} \\
15x^{3}-26x^{2}+18x \\
\end{array}$$

Step1: divide:

Step2: multiply:

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

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

Step1: divide:

Step2: multiply:

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

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

Step1: divide:

Step2: multiply:

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

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

Step1: divide:

Step2: multiply:

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

$$\begin{array}{r} x^{3} \\
5x-2 \overline{\smash{\big)}5x^{4}+13x^{3}-26x^{2}+18x-4} \\
\underline{5x^{4}-2x^{3}} \\
15x^{3}-26x^{2}+18x-4 \\
\end{array}$$

Step1: divide:

Step2: multiply:

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

Step1: divide:

Step2: multiply:

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

$$\begin{array}{r} x^3 + 3x^2 \\
5x - 2 \overline{\smash{\big)}5x^4 + 13x^3 - 26x^2 + 18x - 4} \\
\underline{5x^4 - 2x^3} \\
15x^3 - 26x^2 + 18x - 4
\end{array}$$

Step1: divide:

Step2: multiply:

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

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

Step1: divide:

#### **Step2: multiply:**

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

$$\begin{array}{r} x^{3} + 3x^{2} \\
5x - 2 \overline{\smash{\big)}} 5x^{4} + 13x^{3} - 26x^{2} + 18x - 4 \\
\underline{5x^{4} - 2x^{3}} \\
15x^{3} - 26x^{2} + 18x - 4
\end{array}$$

Step1: divide:

#### **Step2: multiply:**

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

 $15x^3$ 

 $15x^3 - 26x^2 + 18x - 4$ 

Step1: divide:

#### **Step2: multiply:**

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

$$\begin{array}{r} x^{3} + 3x^{2} \\
 5x - 2 \overline{\smash{\big)}} 5x^{4} + 13x^{3} - 26x^{2} + 18x - 4 \\
 5x^{4} - 2x^{3} \\
 15x^{3} - 26x^{2} + 18x - 4
 \end{array}$$

 $\frac{15x^3 - 26x^2 + 18x - 4}{15x^3 - 6x^2}$ 

Step1: divide:

#### **Step2: multiply:**

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

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

Step1: divide:

Step2: multiply:

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

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

Step1: divide:

Step2: multiply:

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

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

Step1: divide:

Step2: multiply:

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

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

Step1: divide:

Step2: multiply:

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

8.  $(5x^{4} + 13x^{3} - 26x^{2} + 18x - 4) \div (5x - 2) =$  5x - 2  $5x^{3} + 3x^{2}$  5x - 2  $5x^{4} + 13x^{3} - 26x^{2} + 18x - 4$ Step1: divide:  $15x^{3} - 26x^{2} + 18x - 4$  $15x^{3} - 6x^{2}$ 

Step 3: subtract

 $-20x^2$ 

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

$$\begin{array}{r} x^{3}+3x^{2}\\ 5x-2 \overline{\smash{\big|}\begin{array}{c} 5x^{4}+13x^{3}-26x^{2}+18x-4\\ 5x^{4}-2x^{3} \end{array}}\\ \hline 15x^{3}-26x^{2}+18x-4\\ 15x^{3}-6x^{2}\\ \hline -20x^{2}+18x \end{array}} \end{array}$$

Step1: divide:

Step2: multiply:

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

Step1: divide:

Step2: multiply:

$$\begin{array}{c|c} x^{3}+3x^{2} \\ 5x-2 & 5x^{4}+13x^{3}-26x^{2}+18x-4 \\ 5x^{4}-2x^{3} \\ \hline \\ 15x^{3}-26x^{2}+18x-4 \\ 15x^{3}-6x^{2} \\ \hline \\ -20x^{2}+18x-4 \end{array}$$

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$  5x - 2 5x - 2  $5x^3 + 3x^2$  5x - 2  $5x^4 + 13x^3 - 26x^2 + 18x - 4$   $5x^4 - 2x^3$ Step 1: divide:  $15x^3 - 26x^2 + 18x - 4$   $15x^3 - 26x^2 + 18x - 4$   $15x^3 - 6x^2$   $-20x^2 + 18x - 4$ 

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

8.  $(5x^{4} + 13x^{3} - 26x^{2} + 18x - 4) \div (5x - 2) =$  5x - 2  $5x^{3} + 3x^{2}$  5x - 2  $5x^{4} + 13x^{3} - 26x^{2} + 18x - 4$   $5x^{4} - 2x^{3}$ Step 2: multiply:  $15x^{3} - 26x^{2} + 18x - 4$   $15x^{3} - 6x^{2}$  $-20x^{2} + 18x - 4$ 

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

Step1: divide:

Step2: multiply:

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

Step1: divide:

Step2: multiply:

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

$$\begin{array}{r} x^3 + 3x^2 - 4x \\ 5x - 2 \overline{\smash{\big|}\ 5x^4 + 13x^3 - 26x^2 + 18x - 4} \\ 5x^4 - 2x^3 \\ \hline 15x^3 - 26x^2 + 18x - 4 \\ \underline{15x^3 - 6x^2} \\ -20x^2 + 18x - 4 \end{array}$$

Step1: divide: Step2: multiply:

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

Step1: divide:

#### **Step2: multiply:**

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

Step1: divide:

#### **Step2: multiply:**

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

Step1: divide:

#### **Step2: multiply:**

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

Step1: divide:

#### **Step2: multiply:**

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

$$\begin{array}{r} x^{3} + 3x^{2} - 4x \\ 5x - 2 \overline{\smash{\big|}\begin{array}{c} 5x^{4} + 13x^{3} - 26x^{2} + 18x - 4 \\ 5x^{4} - 2x^{3} \end{array}} \\ \hline \end{array} \\ \begin{array}{r} 5xep 1: \mbox{ divide:} \\ 5xep 2: \mbox{ multiply:} \\ 5tep 3: \mbox{ subtract} \end{array}} \\ \begin{array}{r} 5x - 2 \overline{\smash{\big|}\begin{array}{c} 5x^{4} + 13x^{3} - 26x^{2} + 18x - 4 \\ 5x^{4} - 2x^{3} \end{array}} \\ \hline 15x^{3} - 26x^{2} + 18x - 4 \\ \underline{15x^{3} - 6x^{2}} \\ -20x^{2} + 18x - 4 \\ -20x^{2} + 8x \end{array}} \end{array}$$

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

$$\begin{array}{rl} x^{3} + 3x^{2} - 4x \\ 5x - 2 & 5x^{4} + 13x^{3} - 26x^{2} + 18x - 4 \\ 5x^{4} - 2x^{3} \\ \end{array}$$
Step 1: divide:  

$$\begin{array}{r} 5x - 2 & 5x^{4} + 13x^{3} - 26x^{2} + 18x - 4 \\ 5x^{4} - 2x^{3} \\ \hline 15x^{3} - 26x^{2} + 18x - 4 \\ 15x^{3} - 6x^{2} \\ \hline -20x^{2} + 18x - 4 \\ -20x^{2} + 8x \end{array}$$

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

 $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 8.

Step1: divide:

$$\begin{array}{r} x^{3} + 3x^{2} - 4x \\ 5x - 2 \overline{\smash{\big)}} 5x - 2 \overline{\smash{\big)}} 5x^{4} + 13x^{3} - 26x^{2} + 18x - 4 \\ 5x^{4} - 2x^{3} \\ \hline \\ 5tep 2: \ \text{multiply:} \\ \textbf{Step 3: subtract} \\ \end{array}$$

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

Step1: divide:

Step2: multiply:

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

$$x^3 + 3x^2 - 4x$$
 $5x - 2$  $5x^4 + 13x^3 - 26x^2 + 18x - 4$ Step1: divide: $5x^4 - 2x^3$ Step2: multiply: $15x^3 - 26x^2 + 18x - 4$ Step 3: subtract $20x^2 + 18x - 4$ 

**10x** 

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

 $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) = \_$ 8.

Step 3:

Step 1: divide:  
Step 2: multiply:  
Step 3: subtract
$$5x - 2 \overline{\smash{\big|}\begin{array}{c} 5x^4 + 13x^3 - 26x^2 + 18x - 4 \\ 5x^4 - 2x^3 \end{array}}} 5x - 26x^2 + 18x - 4 \\ \underline{15x^3 - 26x^2 + 18x - 4} \\ \underline{15x^3 - 6x^2} \\ \underline{-20x^2 + 18x - 4} \\ \underline{-20x^2 + 8x} \\ \underline{-20x^2 + 8x} \\ \underline{-20x^2 + 8x} \\ \underline{-20x^2 - 4x} \\ \underline{-20x^2 -$$

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$  5x - 2 5x - 2 5x - 2  $5x^3 + 3x^2 - 4x$  5x - 4 5x - 2  $5x^4 + 13x^3 - 26x^2 + 18x - 4$   $5x^4 - 2x^3$   $15x^3 - 26x^2 + 18x - 4$   $15x^3 - 6x^2$   $-20x^2 + 18x - 4$  $-20x^2 + 8x$ 

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$   $x^3 + 3x^2 - 4x$   $5x - 2 \qquad 5x^4 + 13x^3 - 26x^2 + 18x - 4$ Step1: divide:  $15x^3 - 26x^2 + 18x - 4$ 

Step2: multiply:

Step 3: subtract

 $-2x^{3}$   $\frac{15x^{3} - 26x^{2} + 18x - 4}{15x^{3} - 6x^{2}}$   $\frac{-20x^{2} + 18x - 4}{-20x^{2} + 8x}$  10x - 4

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

$$\begin{array}{r} x^{3} + 3x^{2} - 4x \\
5x - 2 \overline{\smash{\big)}5x^{4} + 13x^{3} - 26x^{2} + 18x - 4} \\
5x^{4} - 2x^{3} \\
\underline{15x^{3} - 26x^{2} + 18x - 4} \\
\underline{15x^{3} - 6x^{2}} \\
-20x^{2} + 18x - 4 \\
-20x^{2} + 8x \\
\hline
10x 4
\end{array}$$

IUA

Step1: divide:

Step2: multiply:

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

Step1: divide:

Step2: multiply:

Step 3: subtract

$$\begin{array}{r} x^{3} + 3x^{2} - 4x + 2 \\
5x - 2 \overline{\smash{\big)}} 5x^{4} + 13x^{3} - 26x^{2} + 18x - 4 \\
5x^{4} - 2x^{3} \\
\underline{5x^{4} - 2x^{3}} \\
\underline{15x^{3} - 26x^{2} + 18x - 4} \\
\underline{15x^{3} - 6x^{2}} \\
\underline{-20x^{2} + 18x - 4} \\
\underline{-20x^{2} + 8x} \\
\underline{-20x^{2} + 8x} \\
\underline{10x 4}
\end{array}$$

IUA

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

$$\begin{array}{r} x^{3} + 3x^{2} - 4x + 2 \\ 5x - 2 \overline{\smash{\big)}} 5x - 2 \overline{\smash{\big)}} 5x^{4} + 13x^{3} - 26x^{2} + 18x - 4 \\ 5x^{4} - 2x^{3} \\ \hline \\ 5x^{9} - 2x^{3} \\ \hline \\ 15x^{3} - 26x^{2} + 18x - 4 \\ 15x^{3} - 6x^{2} \\ \hline \\ -20x^{2} + 18x - 4 \\ -20x^{2} + 8x \\ \hline \end{array}$$

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

Step 1: divide:  
Step 2: multiply:  
Step 3: subtract
$$\begin{array}{r} x^3 + 3x^2 - 4x + 2 \\ 5x - 2 \overline{\smash{\big)}} 5x^4 + 13x^3 - 26x^2 + 18x - 4 \\ 5x^4 - 2x^3 \\ \hline{15x^3 - 26x^2 + 18x - 4} \\ \underline{15x^3 - 6x^2} \\ -20x^2 + 18x - 4 \\ \underline{-20x^2 + 8x} \\ \hline{10} - 4 \end{array}$$

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

8.  $(5x^{4} + 13x^{3} - 26x^{2} + 18x - 4) \div (5x - 2) =$   $x^{3} + 3x^{2} - 4x + 2$  5x - 2  $5x^{4} + 13x^{3} - 26x^{2} + 18x - 4$   $5x^{4} - 2x^{3}$  Step 1: divide:  $15x^{3} - 26x^{2} + 18x - 4$   $15x^{3} - 6x^{2}$   $20x^{2} + 18x - 4$  $-20x^{2} + 8x$ 

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$   $x^3 + 3x^2 - 4x + 2$  5x - 2 5x - 2  $5x^4 + 13x^3 - 26x^2 + 18x - 4$   $5x^4 - 2x^3$  Step 1: divide:  $15x^3 - 26x^2 + 18x - 4$   $15x^3 - 6x^2$   $20x^2 + 18x - 4$   $-20x^2 + 18x - 4$   $-20x^2 + 8x$ 10x - 4

**10x** 

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

8.  $(5x^{4} + 13x^{3} - 26x^{2} + 18x - 4) \div (5x - 2) =$   $x^{3} + 3x^{2} - 4x + 2$  5x - 2 5x - 2  $5x^{4} + 13x^{3} - 26x^{2} + 18x - 4$   $5x^{4} - 2x^{3}$  Step 1: divide:  $15x^{3} - 26x^{2} + 18x - 4$   $15x^{3} - 6x^{2}$   $20x^{2} + 18x - 4$   $-20x^{2} + 8x$ 10x - 4

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

8.  $(5x^{4} + 13x^{3} - 26x^{2} + 18x - 4) \div (5x - 2) =$   $x^{3} + 3x^{2} - 4x + 2$  5x - 2  $5x^{4} + 13x^{3} - 26x^{2} + 18x - 4$   $5x^{4} - 2x^{3}$ Step 1: divide:  $15x^{3} - 26x^{2} + 18x - 4$   $15x^{3} - 6x^{2}$   $20x^{2} + 18x - 4$  $-20x^{2} + 8x$ 

10x - 4

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

 $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) = \_$ 8.

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Step 1: divide:  
Step 2: multiply:  
Step 3: subtract
$$5x - 2 \overline{\smash{\big|} \begin{array}{c} 5x^4 + 13x^3 - 26x^2 + 18x - 4 \\ 5x^4 - 2x^3 \end{array}} \\
5x - 2 \overline{\smash{\big|} \begin{array}{c} 5x^4 - 2x^3 \\ \hline 15x^3 - 26x^2 + 18x - 4 \\ \hline 15x^3 - 6x^2 \\ \hline -20x^2 + 18x - 4 \\ \hline -20x^2 + 8x \\ \hline 10x - 4 \end{array}} \\$$

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

$$\begin{array}{r} x^{3} + 3x^{2} - 4x + 2 \\ 5x - 2 \overline{\smash{\big)}} 5x - 2 \overline{\smash{\big)}} 5x^{4} + 13x^{3} - 26x^{2} + 18x - 4 \\ 5x^{4} - 2x^{3} \\ \hline \\ 15x^{3} - 26x^{2} + 18x - 4 \\ 15x^{3} - 6x^{2} \\ \hline \\ 20x^{2} + 18x - 4 \\ -20x^{2} + 8x \\ \hline \\ 10x - 4 \end{array}$$

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

$$\begin{array}{r} x^{3} + 3x^{2} - 4x + 2 \\ 5x - 2 \overline{\smash{\big)}} 5x - 2 \overline{\smash{\big)}} 5x^{4} + 13x^{3} - 26x^{2} + 18x - 4 \\ 5x^{4} - 2x^{3} \\ \hline \\ 15x^{3} - 26x^{2} + 18x - 4 \\ 15x^{3} - 6x^{2} \\ \hline \\ 20x^{2} + 18x - 4 \\ -20x^{2} + 8x \\ \hline \\ 10x - 4 \end{array}$$

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

8.  $(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) =$ 

Step 1: divide:  
Step 2: multiply:  
Step 3: subtract
$$5x - 2 \overline{\smash{\big|}\begin{array}{c} 5x^{4} + 13x^{3} - 26x^{2} + 18x - 4 \\ 5x^{4} - 2x^{3} \end{array}}}$$

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

$$\frac{15x^{3} - 26x^{2} + 18x - 4}{15x^{3} - 6x^{2}}$$

$$\frac{-20x^{2} + 18x - 4}{-20x^{2} + 8x}$$

$$10x - 4$$

$$\frac{10x-}{0}$$

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

8.  $(5x^{4} + 13x^{3} - 26x^{2} + 18x - 4) \div (5x - 2) =$   $x^{3} + 3x^{2} - 4x + 2$  5x - 2  $5x^{4} + 13x^{3} - 26x^{2} + 18x - 4$   $5x^{4} - 2x^{3}$ Step 1: divide:  $15x^{3} - 26x^{2} + 18x - 4$   $15x^{3} - 6x^{2}$   $15x^{3} - 6x^{2}$   $-20x^{2} + 18x - 4$  $-20x^{2} + 8x$ 

$$\frac{10x-4}{10x-4}$$

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

8.  $(5x^{4} + 13x^{3} - 26x^{2} + 18x - 4) \div (5x - 2) = x^{3} + 3x^{2} - 4x + 2$   $x^{3} + 3x^{2} - 4x + 2$  5x - 2  $5x^{4} + 13x^{3} - 26x^{2} + 18x - 4$   $5x^{4} - 2x^{3}$ Step1: divide: Step2: multiply: Step 3: subtract  $15x^{3} - 26x^{2} + 18x - 4$   $15x^{3} - 6x^{2}$   $-20x^{2} + 18x - 4$   $-20x^{2} + 8x$ 10x - 4

$$\frac{10x-4}{0}$$

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

8. 
$$(5x^4 + 13x^3 - 26x^2 + 18x - 4) \div (5x - 2) = x^3 + 3x^2 - 4x + 2$$

$$\begin{array}{r} x^{3} + 3x^{2} - 4x + 2 \\ 5x - 2 \overline{\smash{\big|}\begin{array}{c} 5x^{4} + 13x^{3} - 26x^{2} + 18x - 4 \\ 5x^{4} - 2x^{3} \end{array}} \\ \hline 15x^{3} - 26x^{2} + 18x - 4 \\ \underline{15x^{3} - 6x^{2}} \\ -20x^{2} + 18x - 4 \\ \underline{-20x^{2} + 8x} \\ \hline 10x - 4 \\ \underline{10x - 4} \\ 0 \end{array}}$$

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

9.  $(x^5 - 3x^4 + 4x^3 + 3x + 27) \div (x^2 + 3) =$ 

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

9. 
$$(x^5 - 3x^4 + 4x^3 + 3x + 27) \div (x^2 + 3) =$$

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

9. 
$$(x^5 - 3x^4 + 4x^3 + 3x + 27) \div (x^2 + 3) =$$

$$x^2 + 3$$
  $x^5 - 3x^4 + 4x^3 + 3x + 27$ 

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

9. 
$$(x^5 - 3x^4 + 4x^3 + 3x + 27) \div (x^2 + 3) =$$

$$x^2 + 3$$
  $x^5 - 3x^4 + 4x^3 + 3x + 27$ 

Step1: divide:

Step2: multiply:

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

9. 
$$(x^5 - 3x^4 + 4x^3 + 3x + 27) \div (x^2 + 3) =$$

$$x^2 + 3$$
  $x^5 - 3x^4 + 4x^3 + 3x + 27$ 

Step1: divide:

Step2: multiply:

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

9. 
$$(x^5 - 3x^4 + 4x^3 + 3x + 27) \div (x^2 + 3) =$$

$$x^2 + 3$$
  $x^5 - 3x^4 + 4x^3 + 3x + 27$ 

Step1: divide:

Step2: multiply:

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

9. 
$$(x^5 - 3x^4 + 4x^3 + 3x + 27) \div (x^2 + 3) =$$
  
 $x^3$   
 $x^2 + 3$   $x^5 - 3x^4 + 4x^3 + 3x + 27$ 

Step1: divide:

Step2: multiply:

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

9. 
$$(x^5 - 3x^4 + 4x^3 + 3x + 27) \div (x^2 + 3) =$$
  
 $x^3$   
 $x^2 + 3$   $x^5 - 3x^4 + 4x^3 + 3x + 27$   
Step 1: divide:

Step1: divide:

Step2: multiply:

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

9. 
$$(x^5 - 3x^4 + 4x^3 + 3x + 27) \div (x^2 + 3) =$$
\_\_\_\_\_\_  
 $x^3$   
 $x^2 + 3$   $x^5 - 3x^4 + 4x^3 + 3x + 27$ 

Step1: divide:

#### **Step2: multiply:**

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

9. 
$$(x^5 - 3x^4 + 4x^3 + 3x + 27) \div (x^2 + 3) =$$
  
 $x^3$   
 $x^2 + 3$   
 $x^5 - 3x^4 + 4x^3 + 3x + 27$ 

Step1: divide:

#### **Step2: multiply:**

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

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{3}$   
 $x^{2} + 3$   
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
Step 1: divides

Step1: divide:

#### **Step2: multiply:**

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

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{3}$   
 $x^{2} + 3$   
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
Step 1: divide:

Step1: divide:

#### **Step2: multiply:**

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

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{2} + 3 \qquad x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
Step1: divide:

Step2: multiply:

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

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{2} + 3 \qquad x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$ 

Step1: divide:

Step2: multiply:

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

9. 
$$(x^5 - 3x^4 + 4x^3 + 3x + 27) \div (x^2 + 3) =$$

Step1: divide:

Step2: multiply:

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

9. 
$$(x^5 - 3x^4 + 4x^3 + 3x + 27) \div (x^2 + 3) =$$

Step1: divide:

Step2: multiply:

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

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{2} + 3$ 

$$x^{2} + 3 \qquad x^{5} - 3x^{4} + 4x^{3} + 3x + 27$$
Step1: divide:
$$-3x^{4}$$

Step2: multiply:

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

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{3}$   
 $x^{2} + 3$ 
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} + 3x^{3}$   
Step1: divide:  
 $-3x^{4} + x^{3}$ 

Step2: multiply:

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

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{2} + 3 =$   
Step1: divide:  $x^{2} + 3 =$   
 $x^{2} + 3 =$   
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} + 3x^{3} + 3x$ 

Step2: multiply:

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

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{2} + 3$ 

$$x^{2} + 3$$

$$x^{5} - 3x^{4} + 4x^{3} + 3x + 27$$
Step1: divide:
$$-3x^{4} + x^{3} + 3x + 27$$

Step2: multiply:

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

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{2} + 3 \qquad x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
Step1: divide:  $-3x^{4} + x^{3} + 3x + 27$ 

Step2: multiply:

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

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{2} + 3 \qquad x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
Step1: divide:  $-3x^{4} + x^{3} + 3x + 27$ 

Step2: multiply:

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

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{3}$   
 $x^{2} + 3$   
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
Step1: divide:  
 $-3x^{4} + x^{3} + 3x + 27$ 

Step2: multiply:

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

9. 
$$(x^5 - 3x^4 + 4x^3 + 3x + 27) \div (x^2 + 3) =$$

Step1: divide:

Step2: multiply:

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

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{2} + 3 \qquad x^{5} - 3x^{4} + 4x^{3} \qquad + 3x + 27$   
Step1: divide:  $-3x^{4} + x^{3} \qquad + 3x + 27$ 

Step2: multiply:

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

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{2} + 3 =$   
Step1: divide:  $x^{2} + 3 =$   
 $x^{2} + 3 =$   
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} + 3x^{3} + 3x + 27$ 

#### **Step2: multiply:**

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

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{3} - 3x^{2}$   
 $x^{2} + 3$ 
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
Step1: divide:  
 $x^{5} - 3x^{4} + x^{3} + 3x + 27$ 

#### **Step2: multiply:**

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

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{3} - 3x^{2}$   
 $x^{2} + 3$   
 $x^{2} + 3$   
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} + 3x^{3}$   
Step1: divide:  
 $-3x^{4} + x^{3} + 3x + 27$   
 $-3x^{4}$ 

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

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{3} - 3x^{2}$   
 $x^{2} + 3$   
 $x^{2} + 3$   
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} + 3x^{3}$   
Step1: divide:  
 $-3x^{4} + x^{3} + 3x + 27$   
 $-3x^{4} - 9x^{2}$ 

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

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{2} + 3 \qquad x^{5} - 3x^{4} + 4x^{3} \qquad + 3x + 27$   
Step1: divide:  
Step2: multiply:  
 $-3x^{4} - 9x^{2}$ 

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

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{2} + 3 \qquad x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
Step1: divide:  
Step2: multiply:  
 $-3x^{4} + x^{3} + 3x + 27$   
 $-3x^{4} - 9x^{2}$ 

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

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{2} + 3 \qquad x^{5} - 3x^{4} + 4x^{3} \qquad + 3x + 27$   
Step1: divide:  
Step2: multiply:  
 $-3x^{4} - 9x^{2}$ 

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

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{2} + 3 \qquad x^{3} - 3x^{2}$   
 $x^{2} + 3 \qquad x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
Step1: divide:  
Step2: multiply:  
 $-3x^{4} + x^{3} + 3x + 27$   
 $-3x^{4} - 9x^{2}$ 

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{3} - 3x^{2}$   
 $x^{2} + 3$   $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
Step1: divide:  
Step2: multiply:  
Step 3: subtract  
 $x^{3}$ 

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{3} - 3x^{2}$   
 $x^{2} + 3$   
 $x^{2} + 3$   
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} + 3x^{3}$   
Step 2: multiply:  
Step 3: subtract  
 $-3x^{4} - 9x^{2}$   
 $x^{3} + 9x^{2}$ 

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{2} + 3 \qquad x^{3} - 3x^{2}$   
 $x^{2} + 3 \qquad x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
Step1: divide:  
Step2: multiply:  
Step 3: subtract  
 $-3x^{4} - 9x^{2}$   
 $x^{3} + 9x^{2} + 3x$ 

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{3} - 3x^{2}$   
 $x^{2} + 3$   
 $x^{2} + 3$   
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} + 3x^{3}$   
Step 1: divide:  
 $3x^{4} + x^{3} + 3x + 27$   
 $-3x^{4} - 9x^{2}$   
 $x^{3} + 9x^{2} + 3x + 27$ 

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{2} + 3$ 

$$x^{2} + 3$$

$$x^{2} + 3$$

$$x^{5} - 3x^{4} + 4x^{3} + 3x + 27$$

$$x^{5} + 3x^{3}$$
Step 1: divide:
$$-3x^{4} + x^{3} + 3x + 27$$

$$-3x^{4} - 9x^{2}$$

$$x^{3} + 9x^{2} + 3x + 27$$
Step 3: subtract

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{2} + 3$ 

$$x^{2} + 3 \qquad x^{5} - 3x^{4} + 4x^{3} + 3x + 27$$
Step1: divide:
Step2: multiply:
Step 3: subtract
$$-3x^{4} - 9x^{2}$$
 $x^{3} + 9x^{2} + 3x + 27$ 

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{2} + 3$ 
 $x^{2} + 3$ 
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$ 
Step1: divide:  
Step2: multiply:  
Step 3: subtract
 $x^{2} + 3$ 
 $x^{2} + 3$ 
 $x^{3} - 3x^{4} + 4x^{3} + 3x + 27$ 
 $x^{3} + 9x^{2} + 3x + 27$ 

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{3} - 3x^{2} + x$   
 $x^{2} + 3$   
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} + 3x^{3}$   
Step 1: divide:  
 $3x^{2} + 3$   
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} + 3x^{4} - 9x^{2}$   
 $x^{3} + 9x^{2} + 3x + 27$ 

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{3} - 3x^{2} + x$   
 $x^{2} + 3$   
 $x^{2} + 3$   
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} + 3x^{3}$   
Step 1: divide:  
 $x^{2} + 3$   
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} + 3x^{4} - 9x^{2}$   
 $x^{3} + 9x^{2} + 3x + 27$ 

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{2} + 3$ 

$$x^{2} + 3$$

$$x^{2} + 3$$

$$x^{5} - 3x^{4} + 4x^{3} + 3x + 27$$

$$x^{5} + 3x^{3}$$
Step 1: divide:  
Step 2: multiply:  
Step 3: subtract
$$-3x^{4} - 9x^{2}$$

$$x^{3} + 9x^{2} + 3x + 27$$

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{3} - 3x^{2} + x$   
 $x^{2} + 3$   
 $x^{2} + 3$   
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} + 3x^{3}$   
Step 1: divide:  
 $3x^{4} + x^{3} + 3x + 27$   
 $-3x^{4} - 9x^{2}$   
 $x^{3} + 9x^{2} + 3x + 27$ 

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{3} - 3x^{2} + x$   
 $x^{2} + 3$   
Step1: divide:  
Step2: multiply:  
Step 3: subtract  
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $-3x^{4} + x^{3} + 3x + 27$   
 $-3x^{4} - 9x^{2}$   
 $x^{3} + 9x^{2} + 3x + 27$ 

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{3} - 3x^{2} + x$   
 $x^{2} + 3$   
Step1: divide:  
Step2: multiply:  
Step 3: subtract  
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} + 3x^{3}$   
 $-3x^{4} + x^{3} + 3x + 27$   
 $-3x^{4} - 9x^{2}$   
 $x^{3} + 9x^{2} + 3x + 27$   
 $x^{3} + 9x^{2} + 3x + 27$ 

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{2} + 3$   
Step1: divide:  
Step2: multiply:  
Step 3: subtract  
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} + 3x^{3}$   
 $-3x^{4} + x^{3} + 3x + 27$   
 $x^{3} + 9x^{2} + 3x + 27$   
 $x^{3} + 9x^{2} + 3x + 27$ 

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{2} + 3$   
Step1: divide:  
Step2: multiply:  
Step 3: subtract  
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} - 3x^{4} + x^{3} + 3x + 27$   
 $-3x^{4} - 9x^{2}$   
 $x^{3} + 9x^{2} + 3x + 27$ 

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{2} + 3$   
Step1: divide:  
Step2: multiply:  
Step 3: subtract  
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} - 3x^{4} + x^{3} + 3x + 27$   
 $-3x^{4} - 9x^{2}$   
 $x^{3} + 9x^{2} + 3x + 27$   
 $x^{3} + 3x$ 

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{2} + 3$   
Step1: divide:  
Step2: multiply:  
Step 3: subtract  
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} - 3x^{4} + x^{3} + 3x + 27$   
 $-3x^{4} - 9x^{2}$   
 $x^{3} + 9x^{2} + 3x + 27$   
 $x^{3} + 3x$ 

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

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{3} - 3x^{2} + x$   
 $x^{2} + 3$   
 $x^{2} + 3$   
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} + 3x^{3}$   
Step1: divide:  
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} + 3x^{3}$   
 $-3x^{4} + x^{3} + 3x + 27$   
 $-3x^{4} - 9x^{2}$   
 $x^{3} + 9x^{2} + 3x + 27$   
 $x^{3} + 3x$ 

**9**x<sup>2</sup>

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{2} + 3$ 

$$x^{2} + 3$$

$$x^{2} + 3$$

$$x^{5} - 3x^{4} + 4x^{3} + 3x + 27$$

$$x^{5} + 3x^{3}$$
Step1: divide:
$$-3x^{4} + x^{3} + 3x + 27$$

$$-3x^{4} - 9x^{2}$$

$$x^{3} + 9x^{2} + 3x + 27$$

$$x^{3} + 3x$$

$$9x^2 + 27$$

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{2} + 3$ 

$$x^{2} + 3$$

$$x^{2} + 3$$

$$x^{5} - 3x^{4} + 4x^{3} + 3x + 27$$

$$x^{5} + 3x^{3}$$
Step1: divide:
$$-3x^{4} + x^{3} + 3x + 27$$

$$-3x^{4} - 9x^{2}$$

$$x^{3} + 9x^{2} + 3x + 27$$

$$x^{3} + 3x$$

$$9x^2 + 27$$

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{2} + 3$ 

$$x^{2} + 3$$

$$x^{2} + 3$$

$$x^{5} - 3x^{4} + 4x^{3} + 3x + 27$$

$$x^{5} + 3x^{3}$$
Step1: divide:
$$-3x^{4} + x^{3} + 3x + 27$$

$$-3x^{4} - 9x^{2}$$

$$x^{3} + 9x^{2} + 3x + 27$$

$$x^{3} + 3x$$

$$9x^2 + 27$$

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{3} - 3x^{2} + x$   
 $x^{2} + 3$ 
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} + 3x^{3}$ 
  
Step1: divide:  
Step2: multiply:  
Step 3: subtract
 $-3x^{4} - 9x^{2}$   
 $x^{3} + 9x^{2} + 3x + 27$   
 $x^{3} + 3x$   
 $yx^{2} + 27$ 

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{3} - 3x^{2} + x + 9$   
 $x^{2} + 3$ 
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} + 3x^{3}$ 
  
Step1: divide:  
 $3x^{4} + x^{3} + 3x + 27$   
 $-3x^{4} - 9x^{2}$   
 $x^{3} + 9x^{2} + 3x + 27$   
 $x^{3} + 3x$   
 $yx^{2} + 27$ 

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{3} - 3x^{2} + x + 9$   
 $x^{2} + 3$   
 $x^{2} + 3$   
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} + 3x^{3}$   
Step 1: divide:  
 $3x^{4} + x^{3} + 3x + 27$   
 $-3x^{4} - 9x^{2}$   
 $x^{3} + 9x^{2} + 3x + 27$   
 $x^{3} + 3x$   
 $9x^{2} + 27$ 

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

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{2} + 3$ 

$$x^{2} + 3$$

$$x^{2} + 3$$

$$x^{5} - 3x^{4} + 4x^{3} + 3x + 27$$

$$x^{5} + 3x^{3}$$
Step1: divide:
$$-3x^{4} + x^{3} + 3x + 27$$

$$-3x^{4} - 9x^{2}$$

$$x^{3} + 9x^{2} + 3x + 27$$

$$x^{3} + 3x$$

 $9x^2 + 27$ 

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{3} - 3x^{2} + x + 9$   
 $x^{2} + 3$   
 $x^{2} + 3$   
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} + 3x^{3}$   
Step1: divide:  
 $3x^{4} + x^{3} + 3x + 27$   
 $-3x^{4} - 9x^{2}$   
 $x^{3} + 9x^{2} + 3x + 27$   
 $x^{3} + 3x$   
 $9x^{2} + 27$ 

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

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{3} - 3x^{2} + x + 9$   
 $x^{2} + 3$   
 $x^{2} + 3$   
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} + 3x^{3}$   
Step1: divide:  
 $3x^{4} + x^{3} + 3x + 27$   
 $-3x^{4} - 9x^{2}$   
 $x^{3} + 9x^{2} + 3x + 27$   
 $x^{3} + 3x$   
 $9x^{2} + 27$ 

**9**x<sup>2</sup>

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{3} - 3x^{2} + x + 9$   
 $x^{2} + 3$   
 $x^{2} + 3$   
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} + 3x^{3}$   
Step 2: multiply:  
Step 3: subtract  
 $-3x^{4} - 9x^{2}$   
 $x^{3} + 9x^{2} + 3x + 27$   
 $x^{3} + 3x$   
 $9x^{2} + 27$ 

$$9x^{+} + 27^{-}$$
  
 $9x^{2} + 27^{-}$ 

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{3} - 3x^{2} + x + 9$   
 $x^{2} + 3$   
 $x^{2} + 3$   
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} + 3x^{3}$   
Step 1: divide:  
 $3x^{4} + x^{3} + 3x + 27$   
 $-3x^{4} - 9x^{2}$   
 $x^{3} + 9x^{2} + 3x + 27$   
 $x^{3} + 3x$   
 $9x^{2} + 27$ 

$$9x^2 + 27$$

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{3} - 3x^{2} + x + 9$   
 $x^{2} + 3$   
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} + 3x^{3}$   
Step1: divide:  
 $3x^{4} + x^{3} + 3x + 27$   
 $-3x^{4} - 9x^{2}$   
 $x^{3} + 9x^{2} + 3x + 27$   
 $x^{3} + 3x$   
 $9x^{2} + 27$ 

$$9x^2 + 27$$

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

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{3} - 3x^{2} + x + 9$   
 $x^{2} + 3$   
 $x^{2} + 3$   
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} + 3x^{3}$   
Step1: divide:  
 $3x^{4} + x^{3} + 3x + 27$   
 $-3x^{4} - 9x^{2}$   
 $x^{3} + 9x^{2} + 3x + 27$   
 $x^{3} + 3x$   
 $yx^{2} + 27$ 

**9**x<sup>2</sup>

+27

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

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{3} - 3x^{2} + x + 9$   
 $x^{2} + 3$   
 $x^{2} + 3$   
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} + 3x^{3}$   
Step 1: divide:  
 $3x^{4} + x^{3} + 3x + 27$   
 $-3x^{4} - 9x^{2}$   
 $x^{3} + 9x^{2} + 3x + 27$   
 $x^{3} + 3x$   
 $9x^{2} + 27$ 

**9x**<sup>2</sup>

+27

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

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{3} - 3x^{2} + x + 9$   
 $x^{2} + 3$   
 $x^{2} + 3$   
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} + 3x^{3}$   
Step 2: multiply:  
Step 3: subtract  
 $-3x^{4} - 9x^{2}$   
 $x^{3} + 9x^{2} + 3x + 27$   
 $x^{3} + 3x$   
 $yx^{2} + 27$   
 $yx^{2} + 27$ 

0

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

9. 
$$(x^{5} - 3x^{4} + 4x^{3} + 3x + 27) \div (x^{2} + 3) =$$
  
 $x^{3} - 3x^{2} + x + 9$   
 $x^{2} + 3$   
 $x^{2} + 3$   
 $x^{5} - 3x^{4} + 4x^{3} + 3x + 27$   
 $x^{5} + 3x^{3}$   
 $x^{5} + 3x^{3}$   
 $x^{5} + 3x^{3} + 3x + 27$   
 $-3x^{4} - 9x^{2}$   
 $x^{3} + 9x^{2} + 3x + 27$   
 $x^{3} + 3x$   
 $yx^{2} + 27$   
 $yx^{2} + 27$ 

0

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

9.  $(x^5 - 3x^4 + 4x^3 + 3x + 27) \div (x^2 + 3) =$ 

9. 
$$(x^5 - 3x^4 + 4x^3 + 3x + 27) \div (x^2 + 3) = x^3 - 3x^2 + x + 9$$

$$\begin{array}{r} x^{3} - 3x^{2} + x + 9 \\ x^{2} + 3 \overline{\smash{\big|}x^{5} - 3x^{4} + 4x^{3} \\ x^{5} + 3x^{3}} + 3x + 27 \\ \underline{x^{5} + 3x^{3}} \\ \hline -3x^{4} + x^{3} + 3x + 27 \\ \underline{-3x^{4} - 9x^{2}} \\ x^{3} + 9x^{2} + 3x + 27 \\ \underline{x^{3} + 3x} \\ \hline 9x^{2} \\ 4x^{3} \\ 9x^{2} \\ 4x^{2} \\ \hline x^{3} \\ \hline 9x^{2} \\ 4x^{2} \\ \hline x^{3} \\ 4x^{2} \\ 5x^{2} \\ 4x^{2} \\ 5x^{2} \\ 5x^{2} \\ 4x^{2} \\ 5x^{2} \\ 5x^{2}$$

9. 
$$(x^5 - 3x^4 + 4x^3 + 3x + 27) \div (x^2 + 3) = \underline{x^3 - 3x^2 + x + 9}$$
  
 $x^3 - 3x^2 + x + 9$   
 $x^2 + 3 \begin{bmatrix} x^5 - 3x^4 + 4x^3 & + 3x + 27 \\ x^5 & + 3x^3 \end{bmatrix}$ 

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

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

$$x^3 - 4x^2 + 8x - 8$$
  $x^6$  -64

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

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

$$x^3 - 4x^2 + 8x - 8$$
  $x^6$  -64

Step1: divide:

Step2: multiply:

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

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

$$x^3 - 4x^2 + 8x - 8$$
  $x^6$  -64

#### Step1: divide:

Step2: multiply:

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

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

$$x^3 - 4x^2 + 8x - 8$$
  $x^6$  -64

#### Step1: divide:

Step2: multiply:

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

#### Step1: divide:

Step2: multiply:

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

Step1: divide:

Step2: multiply:

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

Step1: divide:

#### **Step2: multiply:**

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

Step1: divide:

### **Step2: multiply:**

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

Step1: divide:

### **Step2: multiply:**

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

Step1: divide:

### **Step2: multiply:**

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

10. 
$$(x^{6} - 64) \div (x^{3} - 4x^{2} + 8x - 8) =$$
  
 $x^{3}$   
 $x^{3} - 4x^{2} + 8x - 8$   
 $x^{6} - 4x^{5} + 8x^{4}$   
 $x^{6} - 4x^{5} + 8x^{4}$ 

Step1: divide:

### **Step2: multiply:**

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

10. 
$$(x^{6} - 64) \div (x^{3} - 4x^{2} + 8x - 8) =$$
  
 $x^{3}$   
 $x^{3} - 4x^{2} + 8x - 8$   
 $x^{6}$   
 $x^{6} - 4x^{5} + 8x^{4} - 8x^{3}$   
 $x^{6} - 4x^{5} + 8x^{4} - 8x^{3}$ 

Step1: divide:

### **Step2: multiply:**

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

Step1: divide:

Step2: multiply:

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

Step1: divide:

Step2: multiply:

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

Step1: divide:

Step2: multiply:

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

Step1: divide:

Step2: multiply:

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

Step1: divide:

Step2: multiply:

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

Step1: divide:

Step2: multiply:

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

Step1: divide:

Step2: multiply:

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

Step1: divide:

Step2: multiply:

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

Step1: divide:

Step2: multiply:

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

#### Step1: divide:

Step2: multiply:

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

#### Step1: divide:

Step2: multiply:

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

10. 
$$(x^{6}-64) \div (x^{3}-4x^{2}+8x-8) = \underline{x^{3}+4x^{2}}$$
  
 $x^{3}-4x^{2}+8x-8 \begin{bmatrix} x^{6} & -64 \\ x^{6}-4x^{5}+8x^{4}-8x^{3} \\ 4x^{5}-8x^{4}+8x^{3} & -64 \end{bmatrix}$ 

#### Step1: divide:

Step2: multiply:

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

10. 
$$(x^{6}-64) \div (x^{3}-4x^{2}+8x-8) = \underline{x^{3}+4x^{2}}$$
  
 $x^{3}-4x^{2}+8x-8 \begin{bmatrix} x^{6} & -64 \\ x^{6}-4x^{5}+8x^{4}-8x^{3} \\ 4x^{5}-8x^{4}+8x^{3} & -64 \end{bmatrix}$ 

Step1: divide:

Step2: multiply:

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

10. 
$$(x^{6}-64) \div (x^{3}-4x^{2}+8x-8) = \underline{x^{3}+4x^{2}}$$
  
 $x^{3}-4x^{2}+8x-8 \begin{bmatrix} x^{6} & -64 \\ x^{6}-4x^{5}+8x^{4}-8x^{3} \\ 4x^{5}-8x^{4}+8x^{3} & -64 \end{bmatrix}$ 

Step1: divide:

### **Step2: multiply:**

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

10. 
$$(x^{6}-64) \div (x^{3}-4x^{2}+8x-8) = \underline{x^{3}+4x^{2}}$$
  
 $x^{3}-4x^{2}+8x-8 \begin{bmatrix} x^{6} & -64 \\ x^{6}-4x^{5}+8x^{4}-8x^{3} \\ 4x^{5}-8x^{4}+8x^{3} & -64 \end{bmatrix}$ 

Step1: divide:

### **Step2: multiply:**

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

10. 
$$(x^{6}-64) \div (x^{3}-4x^{2}+8x-8) = \underline{x^{3}+4x^{2}}$$
  
 $x^{3}-4x^{2}+8x-8 \begin{bmatrix} x^{6} & -64 \\ x^{6}-4x^{5}+8x^{4}-8x^{3} \\ 4x^{5}-8x^{4}+8x^{3} & -64 \\ 4x^{5} \end{bmatrix}$ 

Step1: divide:

### **Step2: multiply:**

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

10. 
$$(x^{6}-64) \div (x^{3}-4x^{2}+8x-8) = \underline{x^{3}+4x^{2}}$$
  
 $x^{3}-4x^{2}+8x-8 \begin{bmatrix} x^{6} & -64 \\ x^{6}-4x^{5}+8x^{4}-8x^{3} \\ 4x^{5}-8x^{4}+8x^{3} \\ -64 \\ 4x^{5}-16x^{4} \end{bmatrix}$ 

Step1: divide:

### **Step2: multiply:**

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

10. 
$$(x^{6}-64) \div (x^{3}-4x^{2}+8x-8) = \underline{x^{3}+4x^{2}}$$
  
 $x^{3}-4x^{2}+8x-8 \begin{bmatrix} x^{6} & -64 \\ x^{6}-4x^{5}+8x^{4}-8x^{3} \\ 4x^{5}-8x^{4}+8x^{3} \\ -64 \\ 4x^{5}-16x^{4}+32x^{3} \end{bmatrix}$ 

Step1: divide:

### **Step2: multiply:**

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

10. 
$$(x^{6}-64) \div (x^{3}-4x^{2}+8x-8) = \underline{x^{3}+4x^{2}}$$
  
 $x^{3}-4x^{2}+8x-8 \begin{bmatrix} x^{6} & -64 \\ x^{6}-4x^{5}+8x^{4}-8x^{3} \\ 4x^{5}-8x^{4}+8x^{3} \\ -64 \\ 4x^{5}-16x^{4}+32x^{3}-32x^{2} \end{bmatrix}$ 

Step1: divide:

### **Step2: multiply:**

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

10. 
$$(x^{6}-64) \div (x^{3}-4x^{2}+8x-8) =$$
\_\_\_\_\_\_  
 $x^{3}-4x^{2}+8x-8 \begin{bmatrix} x^{6} & -64 \\ x^{6}-4x^{5}+8x^{4}-8x^{3} \\ 4x^{5}-8x^{4}+8x^{3} \\ -64 \\ 4x^{5}-16x^{4}+32x^{3}-32x^{2} \end{bmatrix}$ 

Step1: divide:

Step2: multiply:

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

10. 
$$(x^{6}-64) \div (x^{3}-4x^{2}+8x-8) = \underline{x^{3}+4x^{2}}$$
  
 $x^{3}-4x^{2}+8x-8 \begin{bmatrix} x^{6} & -64 \\ x^{6}-4x^{5}+8x^{4}-8x^{3} \\ 4x^{5}-8x^{4}+8x^{3} \\ -64 \\ 4x^{5}-16x^{4}+32x^{3}-32x^{2} \end{bmatrix}$ 

Step1: divide:

Step2: multiply:

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

10. 
$$(x^{6}-64) \div (x^{3}-4x^{2}+8x-8) = \underline{x^{3}+4x^{2}}$$
  
 $x^{3}-4x^{2}+8x-8 \begin{bmatrix} x^{6} & -64 \\ x^{6}-4x^{5}+8x^{4}-8x^{3} \\ 4x^{5}-8x^{4}+8x^{3} \\ 4x^{5}-16x^{4}+32x^{3}-32x^{2} \end{bmatrix}$ 

Step1: divide:

Step2: multiply:

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

10. 
$$(x^{6}-64) \div (x^{3}-4x^{2}+8x-8) = \underline{x^{3}+4x^{2}}$$
  
 $x^{3}-4x^{2}+8x-8 \begin{bmatrix} x^{6} & -64 \\ x^{6}-4x^{5}+8x^{4}-8x^{3} \\ 4x^{5}-8x^{4}+8x^{3} \\ 4x^{5}-16x^{4}+32x^{3}-32x^{2} \end{bmatrix}$ 

Step1: divide:

Step2: multiply:

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

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

$$x^{6} - 4x^{5} + 8x^{4} - 8x^{3}$$

$$4x^{5} - 8x^{4} + 8x^{3} - 64$$

$$4x^{5} - 16x^{4} + 32x^{3} - 32x^{2}$$
Step 1: divide:
$$8x^{4}$$

Step1: divide:

Step2: multiply:

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

10. 
$$(x^{6}-64) \div (x^{3}-4x^{2}+8x-8) = \underline{x^{3}+4x^{2}}$$
  
 $x^{3}-4x^{2}+8x-8 \begin{bmatrix} x^{6} & -64 \\ x^{6}-4x^{5}+8x^{4}-8x^{3} \\ 4x^{5}-8x^{4}+8x^{3} & -64 \\ 4x^{5}-16x^{4}+32x^{3}-32x^{2} \\ 8x^{4}-24x^{3} \end{bmatrix}$   
Step 1: divide:

Step1: divide:

Step2: multiply:

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

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

$$x^{6} - 4x^{5} + 8x^{4} - 8x^{3}$$

$$4x^{5} - 8x^{4} + 8x^{3} - 64$$

$$4x^{5} - 16x^{4} + 32x^{3} - 32x^{2}$$
Step1: divide:  
 $8x^{4} - 24x^{3} + 32x^{2}$ 

Step2: multiply:

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

10. 
$$(x^{6} - 64) \div (x^{3} - 4x^{2} + 8x - 8) =$$
  
 $x^{3} + 4x^{2}$   
 $x^{3} - 4x^{2} + 8x - 8$   
 $x^{6} - 4x^{5} + 8x^{4} - 8x^{3}$   
 $4x^{5} - 8x^{4} + 8x^{3} - 64$   
 $4x^{5} - 16x^{4} + 32x^{3} - 32x^{2}$   
 $8x^{4} - 24x^{3} + 32x^{2} - 64$   
Step1: divide:

Step2: multiply:

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

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

$$x^{6} - 4x^{5} + 8x^{4} - 8x^{3}$$

$$4x^{5} - 8x^{4} + 8x^{3} - 64$$

$$4x^{5} - 16x^{4} + 32x^{3} - 32x^{2}$$
Step1: divide:
$$8x^{4} - 24x^{3} + 32x^{2} - 64$$

Step2: multiply:

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

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

$$x^{6} - 4x^{5} + 8x^{4} - 8x^{3}$$

$$4x^{5} - 8x^{4} + 8x^{3} - 64$$

$$4x^{5} - 16x^{4} + 32x^{3} - 32x^{2}$$
Step1: divide:
$$8x^{4} - 24x^{3} + 32x^{2} - 64$$

Step2: multiply:

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

10. 
$$(x^{6} - 64) \div (x^{3} - 4x^{2} + 8x - 8) =$$
  
 $x^{3} + 4x^{2}$   
 $x^{3} - 4x^{2} + 8x - 8$ 
 $x^{6} - 4x^{5} + 8x^{4} - 8x^{3}$   
 $4x^{5} - 8x^{4} + 8x^{3} - 64$   
 $4x^{5} - 16x^{4} + 32x^{3} - 32x^{2}$   
Step1: divide:  
 $8x^{4} - 24x^{3} + 32x^{2} - 64$ 

Step2: multiply:

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

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

$$x^{6} - 4x^{5} + 8x^{4} - 8x^{3}$$

$$4x^{5} - 8x^{4} + 8x^{3} - 64$$

$$4x^{5} - 16x^{4} + 32x^{3} - 32x^{2}$$
Step1: divide:  
 $8x^{4} - 24x^{3} + 32x^{2} - 64$ 

Step2: multiply:

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

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

$$x^{6} - 4x^{5} + 8x^{4} - 8x^{3}$$

$$4x^{5} - 8x^{4} + 8x^{3} - 64$$

$$4x^{5} - 16x^{4} + 32x^{3} - 32x^{2}$$
Step1: divide:  
 $8x^{4} - 24x^{3} + 32x^{2} - 64$ 

Step2: multiply:

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

10. 
$$(x^{6} - 64) \div (x^{3} - 4x^{2} + 8x - 8) =$$
  
 $x^{3} + 4x^{2} + 8x$   
 $x^{3} - 4x^{2} + 8x - 8$ 
 $x^{6} - 4x^{5} + 8x^{4} - 8x^{3}$   
 $4x^{5} - 8x^{4} + 8x^{3} - 64$   
 $4x^{5} - 16x^{4} + 32x^{3} - 32x^{2}$   
 $8x^{4} - 24x^{3} + 32x^{2} - 64$ 

#### **Step2: multiply:**

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

10. 
$$(x^{6} - 64) \div (x^{3} - 4x^{2} + 8x - 8) =$$
  
 $x^{3} + 4x^{2} + 8x$   
 $x^{3} - 4x^{2} + 8x - 8$ 
 $x^{6} - 4x^{5} + 8x^{4} - 8x^{3}$   
 $4x^{5} - 8x^{4} + 8x^{3} - 64$   
 $4x^{5} - 16x^{4} + 32x^{3} - 32x^{2}$   
Step 1: divide:  
 $8x^{4} - 24x^{3} + 32x^{2} - 64$ 

#### **Step2: multiply:**

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

10. 
$$(x^{6} - 64) \div (x^{3} - 4x^{2} + 8x - 8) =$$
  
 $x^{3} + 4x^{2} + 8x$   
 $x^{3} - 4x^{2} + 8x - 8$   
 $x^{6} - 4x^{5} + 8x^{4} - 8x^{3}$   
 $4x^{5} - 8x^{4} + 8x^{3} - 64$   
 $4x^{5} - 16x^{4} + 32x^{3} - 32x^{2}$   
Step1: divide:  $8x^{4} - 24x^{3} + 32x^{2} - 64$ 

#### **Step2: multiply:**

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

10. 
$$(x^{6} - 64) \div (x^{3} - 4x^{2} + 8x - 8) =$$
  
 $x^{3} + 4x^{2} + 8x$   
 $x^{3} - 4x^{2} + 8x - 8$   
 $x^{6} - 4x^{5} + 8x^{4} - 8x^{3}$   
 $4x^{5} - 8x^{4} + 8x^{3} - 64$   
 $4x^{5} - 16x^{4} + 32x^{3} - 32x^{2}$   
Step1: divide:  $8x^{4} - 24x^{3} + 32x^{2} - 64$ 

#### **Step2: multiply:**

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

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

$$x^{3} + 4x^{2} + 8x$$

$$x^{3} - 4x^{2} + 8x - 8$$

$$x^{6} - 4x^{5} + 8x^{4} - 8x^{3}$$

$$4x^{5} - 8x^{4} + 8x^{3} - 64$$

$$4x^{5} - 16x^{4} + 32x^{3} - 32x^{2}$$

$$8x^{4} - 24x^{3} + 32x^{2} - 64$$

$$8x^{4} - 32x^{3} + 64x^{2}$$

#### **Step2: multiply:**

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

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

$$x^{3} + 4x^{2} + 8x$$

$$x^{3} - 4x^{2} + 8x - 8$$

$$x^{6} - 4x^{5} + 8x^{4} - 8x^{3}$$

$$- 64$$

$$4x^{5} - 8x^{4} + 8x^{3} - 64$$

$$4x^{5} - 16x^{4} + 32x^{3} - 32x^{2}$$

$$8x^{4} - 24x^{3} + 32x^{2} - 64$$

$$8x^{4} - 32x^{3} + 64x^{2} - 64x$$

#### **Step2: multiply:**

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

10. 
$$(x^{6}-64) \div (x^{3}-4x^{2}+8x-8) =$$
  
 $x^{3}+4x^{2}+8x$   
 $x^{3}-4x^{2}+8x-8$ 
 $x^{6} - 4x^{5}+8x^{4}-8x^{3}$ 
 $-64$ 
 $x^{6}-4x^{5}+8x^{4}-8x^{3}$ 
 $4x^{5}-8x^{4}+8x^{3} - 64$ 
 $4x^{5}-16x^{4}+32x^{3}-32x^{2}$ 
Step1: divide:  $8x^{4}-24x^{3}+32x^{2} - 64$ 
Step2: multiply:

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

10. 
$$(x^{6}-64) \div (x^{3}-4x^{2}+8x-8) =$$
  
 $x^{3}+4x^{2}+8x$   
 $x^{3}-4x^{2}+8x-8$ 
 $x^{6}-4x^{5}+8x^{4}-8x^{3}$   
 $4x^{5}-8x^{4}+8x^{3}-64$   
 $4x^{5}-16x^{4}+32x^{3}-32x^{2}$   
Step1: divide:  $8x^{4}-24x^{3}+32x^{2}-64x$ 

Step2: multiply:

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

10. 
$$(x^{6} - 64) \div (x^{3} - 4x^{2} + 8x - 8) =$$
  
 $x^{3} + 4x^{2} + 8x$   
 $x^{3} - 4x^{2} + 8x - 8$ 
 $x^{6} - 4x^{5} + 8x^{4} - 8x^{3}$ 
 $4x^{5} - 8x^{4} + 8x^{3} - 64$   
 $4x^{5} - 16x^{4} + 32x^{3} - 32x^{2}$ 
Step1: divide:  
 $8x^{4} - 24x^{3} + 32x^{2} - 64$ 

Step2: multiply:

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

10. 
$$(x^{6} - 64) \div (x^{3} - 4x^{2} + 8x - 8) =$$
  
 $x^{3} + 4x^{2} + 8x$   
 $x^{3} - 4x^{2} + 8x - 8$ 
 $x^{6} - 4x^{5} + 8x^{4} - 8x^{3}$ 
 $4x^{5} - 8x^{4} + 8x^{3} - 64$   
 $4x^{5} - 16x^{4} + 32x^{3} - 32x^{2}$ 
Step1: divide:  
 $8x^{4} - 24x^{3} + 32x^{2} - 64$   
 $8x^{4} - 32x^{3} + 64x^{2} - 64x$ 

Step2: multiply:

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

10. 
$$(x^{6}-64) \div (x^{3}-4x^{2}+8x-8) =$$
  
 $x^{3}+4x^{2}+8x$   
 $x^{3}-4x^{2}+8x-8$ 
 $x^{6}-4x^{5}+8x^{4}-8x^{3}$ 
 $4x^{5}-8x^{4}+8x^{3}$ 
 $-64$ 
 $4x^{5}-16x^{4}+32x^{3}-32x^{2}$ 
Step1: divide:
Step2: multiply:
 $8x^{3}$ 

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

10. 
$$(x^{6}-64) \div (x^{3}-4x^{2}+8x-8) =$$
  
 $x^{3}+4x^{2}+8x$   
 $x^{3}-4x^{2}+8x-8$ 
 $x^{6}-4x^{5}+8x^{4}-8x^{3}$ 
 $4x^{5}-8x^{4}+8x^{3}$ 
 $-64$ 
 $4x^{5}-16x^{4}+32x^{3}-32x^{2}$ 
Step1: divide:  
Step2: multiply:  $8x^{4}-24x^{3}+32x^{2}$ 
 $-64$ 

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

10. 
$$(x^{6}-64) \div (x^{3}-4x^{2}+8x-8) =$$
  
 $x^{3}+4x^{2}+8x$   
 $x^{3}-4x^{2}+8x-8$ 
 $x^{6}-4x^{5}+8x^{4}-8x^{3}$ 
 $4x^{5}-8x^{4}+8x^{3}$ 
 $-64$ 
 $4x^{5}-16x^{4}+32x^{3}-32x^{2}$ 
Step1: divide:  
Step2: multiply:  $8x^{4}-24x^{3}+32x^{2}$ 
 $-64$ 
 $8x^{4}-32x^{3}+64x^{2}-64x$ 
 $8x^{3}-32x^{2}+64x$ 

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

10. 
$$(x^{6}-64) \div (x^{3}-4x^{2}+8x-8) =$$
  
 $x^{3}+4x^{2}+8x$   
 $x^{3}-4x^{2}+8x-8$ 
 $x^{6}-4x^{5}+8x^{4}-8x^{3}$ 
 $4x^{5}-8x^{4}+8x^{3}$ 
 $-64$ 
 $4x^{5}-16x^{4}+32x^{3}-32x^{2}$ 
Step1: divide:  
Step2: multiply:  $8x^{4}-24x^{3}+32x^{2}$ 
 $-64$ 
 $8x^{4}-32x^{3}+64x^{2}-64x$ 
 $8x^{3}-32x^{2}+64x-64$ 

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

10. 
$$(x^{6}-64) \div (x^{3}-4x^{2}+8x-8) =$$
  
 $x^{3}+4x^{2}+8x$   
 $x^{3}-4x^{2}+8x-8$ 
 $x^{6}-4x^{5}+8x^{4}-8x^{3}$ 
 $4x^{5}-8x^{4}+8x^{3}$ 
 $-64$ 
 $4x^{5}-16x^{4}+32x^{3}-32x^{2}$ 
Step1: divide:
Step2: multiply:
 $8x^{4}-24x^{3}+32x^{2}-64x$ 
 $8x^{4}-32x^{3}+64x^{2}-64x$ 

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

10. 
$$(x^{6}-64) \div (x^{3}-4x^{2}+8x-8) =$$
  
 $x^{3}+4x^{2}+8x$   
 $x^{3}-4x^{2}+8x-8$ 
 $x^{6}-4x^{5}+8x^{4}-8x^{3}$ 
 $4x^{5}-8x^{4}+8x^{3}$ 
 $-64$ 
 $4x^{5}-16x^{4}+32x^{3}-32x^{2}$ 
Step1: divide:
Step2: multiply:
 $8x^{4}-24x^{3}+32x^{2}$ 
 $-64$ 
 $8x^{4}-32x^{3}+64x^{2}-64x$ 
 $8x^{3}-32x^{2}+64x-64$ 

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

10. 
$$(x^{6}-64) \div (x^{3}-4x^{2}+8x-8) =$$
  
 $x^{3}+4x^{2}+8x$   
 $x^{3}-4x^{2}+8x-8$ 
 $x^{6}$ 
 $x^{6}-4x^{5}+8x^{4}-8x^{3}$ 
 $4x^{5}-8x^{4}+8x^{3}$ 
 $-64$ 
 $4x^{5}-16x^{4}+32x^{3}-32x^{2}$ 
  
Step1: divide:
 $8x^{4}-24x^{3}+32x^{2}$ 
 $-64$ 
 $8x^{4}-32x^{3}+64x^{2}-64x$ 
  
Step2: multiply:
 $8x^{3}-32x^{2}+64x-64$ 

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

10. 
$$(x^{6}-64) \div (x^{3}-4x^{2}+8x-8) =$$
  
 $x^{3}+4x^{2}+8x+8$   
 $x^{3}-4x^{2}+8x-8$   
 $x^{6}-4x^{5}+8x^{4}-8x^{3}$   
 $4x^{5}-8x^{4}+8x^{3} - 64$   
 $4x^{5}-16x^{4}+32x^{3}-32x^{2}$   
8x^{4}-24x^{3}+32x^{2} - 64  
 $8x^{4}-32x^{3}+64x^{2}-64x$   
Step2: multiply:  
 $8x^{3}-32x^{2}+64x-64$ 

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

10. 
$$(x^{6} - 64) \div (x^{3} - 4x^{2} + 8x - 8) =$$
  
 $x^{3} + 4x^{2} + 8x + 8$   
 $x^{3} - 4x^{2} + 8x - 8$   
 $x^{6} - 4x^{5} + 8x^{4} - 8x^{3}$   
 $4x^{5} - 8x^{4} + 8x^{3} - 64$   
 $4x^{5} - 16x^{4} + 32x^{3} - 32x^{2}$   
8x^{4} - 24x^{3} + 32x^{2} - 64  
 $8x^{4} - 32x^{3} + 64x^{2} - 64x$   
Step2: multiply:  $8x^{3} - 32x^{2} + 64x - 64$ 

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

10. 
$$(x^{6}-64) \div (x^{3}-4x^{2}+8x-8) =$$
  
 $x^{3}+4x^{2}+8x+8$   
 $x^{3}-4x^{2}+8x-8$   
 $x^{6}-4x^{5}+8x^{4}-8x^{3}$   
 $4x^{5}-8x^{4}+8x^{3}$   
 $4x^{5}-16x^{4}+32x^{3}-32x^{2}$   
Step1: divide:  
 $8x^{4}-24x^{3}+32x^{2}$   
 $8x^{4}-24x^{3}+64x^{2}-64x$   
 $8x^{3}-32x^{2}+64x-64$ 

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

10. 
$$(x^{6}-64) \div (x^{3}-4x^{2}+8x-8) =$$
  
 $x^{3}+4x^{2}+8x+8$   
 $x^{3}-4x^{2}+8x-8$   
 $x^{6}-4x^{5}+8x^{4}-8x^{3}$   
 $4x^{5}-8x^{4}+8x^{3}$   
 $4x^{5}-16x^{4}+32x^{3}-32x^{2}$   
Step1: divide:  
 $8x^{4}-24x^{3}+32x^{2}$   
 $8x^{4}-32x^{3}+64x^{2}-64x$   
 $8x^{3}-32x^{2}+64x-64$ 

10. 
$$(x^{6} - 64) \div (x^{3} - 4x^{2} + 8x - 8) =$$
  
 $x^{3} + 4x^{2} + 8x + 8$   
 $x^{3} - 4x^{2} + 8x - 8$   
 $x^{6} - 4x^{5} + 8x^{4} - 8x^{3}$   
 $4x^{5} - 8x^{4} + 8x^{3} - 64$   
 $4x^{5} - 16x^{4} + 32x^{3} - 32x^{2}$   
 $8x^{4} - 24x^{3} + 32x^{2} - 64$   
 $8x^{4} - 32x^{3} + 64x^{2} - 64x$   
 $8x^{3} - 32x^{2} + 64x - 64$   
 $8x^{3}$ 

10. 
$$(x^{6}-64) \div (x^{3}-4x^{2}+8x-8) =$$
  
 $x^{3}+4x^{2}+8x+8$   
 $x^{3}-4x^{2}+8x-8$   
 $x^{6}-4x^{5}+8x^{4}-8x^{3}$   
 $4x^{5}-8x^{4}+8x^{3}$   
 $4x^{5}-16x^{4}+32x^{3}-32x^{2}$   
Step1: divide:  
Step2: multiply:  
Step 3: subtract  
 $8x^{3}-32x^{2}$   
 $8x^{3}-32x^{2}$   
 $8x^{3}-32x^{2}$ 

10. 
$$(x^{6}-64) \div (x^{3}-4x^{2}+8x-8) =$$
  
 $x^{3}+4x^{2}+8x+8$   
 $x^{3}-4x^{2}+8x-8$   
 $x^{6}-4x^{5}+8x^{4}-8x^{3}$   
 $4x^{5}-8x^{4}+8x^{3}$   
 $4x^{5}-16x^{4}+32x^{3}-32x^{2}$   
Step1: divide:  
Step2: multiply:  
Step 3: subtract  
 $8x^{3}-32x^{2}+64x-64$   
 $8x^{3}-32x^{2}+64x$ 

10. 
$$(x^{6}-64) \div (x^{3}-4x^{2}+8x-8) =$$
  
 $x^{3}+4x^{2}+8x+8$   
 $x^{3}-4x^{2}+8x-8$   
 $x^{6}-4x^{5}+8x^{4}-8x^{3}$   
 $4x^{5}-8x^{4}+8x^{3}$   
 $4x^{5}-16x^{4}+32x^{3}-32x^{2}$   
Step1: divide:  
Step2: multiply:  
Step 3: subtract  
 $8x^{3}-32x^{2}+64x-64$   
 $8x^{3}-32x^{2}+64x-64$ 

10. 
$$(x^{6}-64) \div (x^{3}-4x^{2}+8x-8) =$$
  
 $x^{3}+4x^{2}+8x+8$   
 $x^{3}-4x^{2}+8x-8$   
 $x^{6}-4x^{5}+8x^{4}-8x^{3}$   
 $4x^{5}-8x^{4}+8x^{3}$   
 $4x^{5}-16x^{4}+32x^{3}-32x^{2}$   
Step1: divide:  
Step2: multiply:  
Step 3: subtract  
 $8x^{3}-32x^{2}+64x-64$   
 $8x^{3}-32x^{2}+64x-64$ 

10. 
$$(x^{6}-64) \div (x^{3}-4x^{2}+8x-8) =$$
  
 $x^{3}+4x^{2}+8x+8$   
 $x^{3}-4x^{2}+8x-8$   
 $x^{6}-4x^{5}+8x^{4}-8x^{3}$   
 $4x^{5}-8x^{4}+8x^{3}$   
 $4x^{5}-16x^{4}+32x^{3}-32x^{2}$   
Step1: divide:  
Step2: multiply:  
Step 3: subtract  
 $8x^{4}-24x^{3}+32x^{2}-64x$   
 $8x^{3}-32x^{2}+64x-64$   
 $8x^{3}-32x^{2}+64x-64$ 

10. 
$$(x^{6} - 64) \div (x^{3} - 4x^{2} + 8x - 8) =$$
  
 $x^{3} + 4x^{2} + 8x + 8$   
 $x^{3} - 4x^{2} + 8x - 8$   
 $x^{6} - 4x^{5} + 8x^{4} - 8x^{3}$   
 $4x^{5} - 8x^{4} + 8x^{3} - 64$   
 $4x^{5} - 16x^{4} + 32x^{3} - 32x^{2}$   
Step1: divide:  
Step2: multiply:  
Step 3: subtract  
 $8x^{3} - 32x^{2} + 64x - 64$   
 $8x^{3} - 32x^{2} + 64x - 64$ 

10. 
$$(x^{6} - 64) \div (x^{3} - 4x^{2} + 8x - 8) =$$
  
 $x^{3} + 4x^{2} + 8x + 8$   
 $x^{3} - 4x^{2} + 8x - 8$   
 $x^{6} - 4x^{5} + 8x^{4} - 8x^{3}$   
 $4x^{5} - 8x^{4} + 8x^{3} - 64$   
 $4x^{5} - 16x^{4} + 32x^{3} - 32x^{2}$   
Step1: divide:  
Step2: multiply:  
Step 3: subtract  
 $8x^{3} - 32x^{2} + 64x - 64$   
 $8x^{3} - 32x^{2} + 64x - 64$ 

10. 
$$(x^{6}-64) \div (x^{3}-4x^{2}+8x-8) =$$
  
 $x^{3}+4x^{2}+8x+8$   
 $x^{3}-4x^{2}+8x-8$   
 $x^{6}-4x^{5}+8x^{4}-8x^{3}$   
 $4x^{5}-8x^{4}+8x^{3}$   
 $4x^{5}-16x^{4}+32x^{3}-32x^{2}$   
8x^{4}-24x^{3}+32x^{2}  
 $8x^{4}-32x^{3}+64x^{2}-64x$   
Step 3: subtract  
 $8x^{3}-32x^{2}+64x-64$   
 $8x^{3}-32x^{2}+64x-64$   
 $8x^{3}-32x^{2}+64x-64$ 

10. 
$$(x^{6}-64) \div (x^{3}-4x^{2}+8x-8) =$$
  
 $x^{3}+4x^{2}+8x+8$   
 $x^{3}-4x^{2}+8x-8$   
 $x^{6}-4x^{5}+8x^{4}-8x^{3}$   
 $4x^{5}-8x^{4}+8x^{3} - 64$   
 $4x^{5}-16x^{4}+32x^{3}-32x^{2}$   
Step1: divide:  
Step2: multiply:  
Step 3: subtract  
 $8x^{3}-32x^{2}+64x-64$   
 $8x^{3}-32x^{2}+64x-64$   
 $8x^{3}-32x^{2}+64x-64$   
 $8x^{3}-32x^{2}+64x-64$ 

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

$$x^{3} - 4x^{2} + 8x - 8 \qquad x^{6} - 4x^{5} + 8x^{4} - 8x^{3} - 64$$

$$x^{6} - 4x^{5} + 8x^{4} - 8x^{3} - 64$$

$$4x^{5} - 16x^{4} + 32x^{3} - 32x^{2} - 64$$

$$8x^{4} - 24x^{3} + 32x^{2} - 64$$

$$8x^{4} - 32x^{3} + 64x^{2} - 64x$$

$$8x^{3} - 32x^{2} + 64x - 64$$

$$8x^{3} - 32x^{2} + 64x - 64$$

$$8x^{3} - 32x^{2} + 64x - 64$$

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

$$x^{3}-4x^{2}+8x-8$$

$$x^{6}-4x^{5}+8x^{4}-8x^{3}$$

$$-64$$

$$4x^{5}-16x^{4}+32x^{3}-32x^{2}$$

$$8x^{4}-24x^{3}+32x^{2}-64$$

$$8x^{4}-32x^{3}+64x^{2}-64x$$

$$8x^{3}-32x^{2}+64x-64$$

$$8x^{3}-32x^{2}+64x-64$$

$$8x^{3}-32x^{2}+64x-64$$

10. 
$$(x^{6}-64) \div (x^{3}-4x^{2}+8x-8) = x^{3}+4x^{2}+8x+8$$
  
 $x^{3}-4x^{2}+8x-8$ 
 $x^{6}$ 
-64  
**Good luck on your homework !!**  
 $4x^{5}-16x^{4}+32x^{5}-32x^{2}$   
 $8x^{4}-24x^{3}+32x^{2}$ 
-64  
 $8x^{4}-32x^{3}+64x^{2}-64x$   
 $8x^{3}-32x^{2}+64x-64$   
 $8x^{3}-32x^{2}+64x-64$   
 $8x^{3}-32x^{2}+64x-64$