Algebra I Lesson #4 Unit 1

Class Worksheet #4

For Worksheet #5

Algebra I Unit 1 Exponents and Factors

Algebra I Unit 1 Exponents and Factors

$7 \cdot 7 = 7^2$

Algebra I Unit 1 Exponents and Factors

$$7 \cdot 7 = 7^2$$

$$7 \cdot 7 \cdot 7 = 7^3$$

Algebra I Unit 1 Exponents and Factors

$$7 \cdot 7 = 7^2$$

$$7 \cdot 7 \cdot 7 = 7^3$$

$$7 \cdot 7 \cdot 7 \cdot 7 = 7^4$$

Algebra I Unit 1 Exponents and Factors

$$7 \cdot 7 = 7^2$$

$$7 \cdot 7 \cdot 7 = 7^3$$

$$7 \cdot 7 \cdot 7 \cdot 7 = 7^4$$

$$7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 = 7^5$$

Algebra I Unit 1 Exponents and Factors

$$7 = 7^1$$

$$7 \cdot 7 = 7^2$$

$$7 \cdot 7 \cdot 7 = 7^3$$

$$7 \cdot 7 \cdot 7 \cdot 7 = 7^4$$

$$7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 = 7^5$$

Algebra I Unit 1 Exponents and Factors

$7 = 7^1$

$7 \cdot 7 = 7^2$

$7 \cdot 7 \cdot 7 = 7^3$

$7 \cdot 7 \cdot 7 \cdot 7 = 7^4$

$7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 = 7^5$

$4 = 4^1$

$4 \cdot 4 = 4^2$

$4 \cdot 4 \cdot 4 = 4^3$

$4 \cdot 4 \cdot 4 \cdot 4 = 4^4$

$4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 = 4^5$

Algebra I Unit 1 Exponents and Factors

$7 = 7^1$	$4 = 4^1$	$x = x^1$
$7 \cdot 7 = 7^2$	$4 \cdot 4 = 4^2$	$x \cdot x = x^2$
$7 \cdot 7 \cdot 7 = 7^3$	$4 \cdot 4 \cdot 4 = 4^3$	$x \cdot x \cdot x = x^3$
$7 \cdot 7 \cdot 7 \cdot 7 = 7^4$	$4 \cdot 4 \cdot 4 \cdot 4 = 4^4$	$x \cdot x \cdot x \cdot x = x^4$
$7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 = 7^5$	$4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 = 4^5$	$x \cdot x \cdot x \cdot x \cdot x = x^5$

Algebra I Unit 1 Exponents and Factors

$7 = 7^1$

$7 \cdot 7 = 7^2$

$7 \cdot 7 \cdot 7 = 7^3$

$7 \cdot 7 \cdot 7 \cdot 7 = 7^4$

$7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 = 7^5$

$4 = 4^1$

$4 \cdot 4 = 4^2$

$4 \cdot 4 \cdot 4 = 4^3$

$4 \cdot 4 \cdot 4 \cdot 4 = 4^4$

$4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 = 4^5$

$x = x^1$

$x \cdot x = x^2$

$x \cdot x \cdot x = x^3$

$x \cdot x \cdot x \cdot x = x^4$

$x \cdot x \cdot x \cdot x \cdot x = x^5$

$$4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 = 4^5$$

Algebra I Unit 1 Exponents and Factors

$7 = 7^1$

$7 \cdot 7 = 7^2$

$7 \cdot 7 \cdot 7 = 7^3$

$7 \cdot 7 \cdot 7 \cdot 7 = 7^4$

$7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 = 7^5$

$4 = 4^1$

$4 \cdot 4 = 4^2$

$4 \cdot 4 \cdot 4 = 4^3$

$4 \cdot 4 \cdot 4 \cdot 4 = 4^4$

$4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 = 4^5$

$x = x^1$

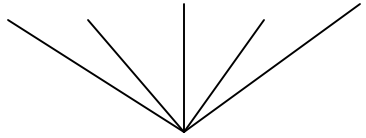
$x \cdot x = x^2$

$x \cdot x \cdot x = x^3$

$x \cdot x \cdot x \cdot x = x^4$

$x \cdot x \cdot x \cdot x \cdot x = x^5$

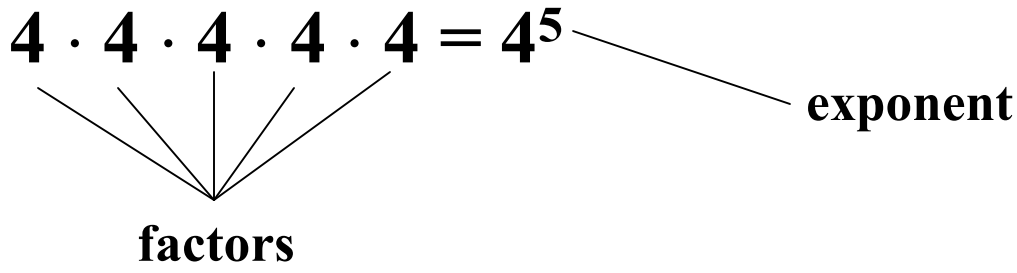
$$4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 = 4^5$$



factors

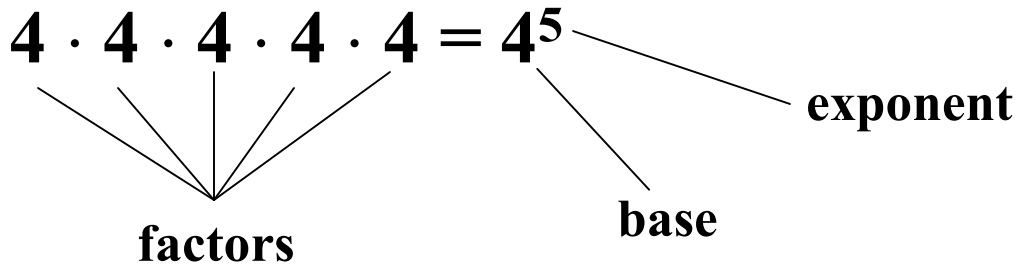
Algebra I Unit 1 Exponents and Factors

$7 = 7^1$	$4 = 4^1$	$x = x^1$
$7 \cdot 7 = 7^2$	$4 \cdot 4 = 4^2$	$x \cdot x = x^2$
$7 \cdot 7 \cdot 7 = 7^3$	$4 \cdot 4 \cdot 4 = 4^3$	$x \cdot x \cdot x = x^3$
$7 \cdot 7 \cdot 7 \cdot 7 = 7^4$	$4 \cdot 4 \cdot 4 \cdot 4 = 4^4$	$x \cdot x \cdot x \cdot x = x^4$
$7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 = 7^5$	$4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 = 4^5$	$x \cdot x \cdot x \cdot x \cdot x = x^5$



Algebra I Unit 1 Exponents and Factors

$7 = 7^1$	$4 = 4^1$	$x = x^1$
$7 \cdot 7 = 7^2$	$4 \cdot 4 = 4^2$	$x \cdot x = x^2$
$7 \cdot 7 \cdot 7 = 7^3$	$4 \cdot 4 \cdot 4 = 4^3$	$x \cdot x \cdot x = x^3$
$7 \cdot 7 \cdot 7 \cdot 7 = 7^4$	$4 \cdot 4 \cdot 4 \cdot 4 = 4^4$	$x \cdot x \cdot x \cdot x = x^4$
$7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 = 7^5$	$4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 = 4^5$	$x \cdot x \cdot x \cdot x \cdot x = x^5$



Algebra I Unit 1 Exponents and Factors

Simplifying Algebraic Expressions

Algebra I Unit 1 Exponents and Factors

Simplifying Algebraic Expressions

$x \cdot x \cdot x \cdot y \cdot y \cdot y \cdot y =$ _____

Algebra I Unit 1 Exponents and Factors

Simplifying Algebraic Expressions

$x \cdot x \cdot x \cdot y \cdot y \cdot y \cdot y =$ _____

Algebra I Unit 1 Exponents and Factors

Simplifying Algebraic Expressions

$x \cdot x \cdot x \cdot y \cdot y \cdot y \cdot y =$ _____

x^3

Algebra I Unit 1 Exponents and Factors

Simplifying Algebraic Expressions

$x \cdot x \cdot x \cdot y \cdot y \cdot y \cdot y =$ _____

x^3

Algebra I Unit 1 Exponents and Factors

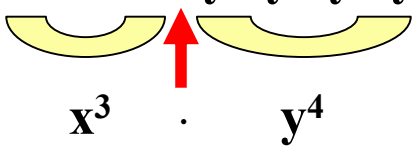
Simplifying Algebraic Expressions

$\underbrace{x \cdot x \cdot x}_{x^3} \cdot \underbrace{y \cdot y \cdot y \cdot y}_{y^4} =$ _____

Algebra I Unit 1 Exponents and Factors

Simplifying Algebraic Expressions

$x \cdot x \cdot x \cdot y \cdot y \cdot y \cdot y =$ _____

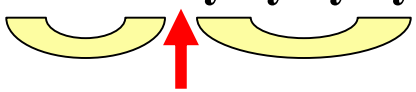


$x^3 \cdot y^4$

Algebra I Unit 1 Exponents and Factors

Simplifying Algebraic Expressions

$x \cdot x \cdot x \cdot y \cdot y \cdot y \cdot y = \underline{\qquad x^3y^4 \qquad}$

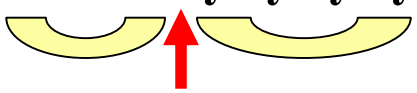


$x^3 \quad \cdot \quad y^4$

Algebra I Unit 1 Exponents and Factors

Simplifying Algebraic Expressions

$x \cdot x \cdot x \cdot y \cdot y \cdot y \cdot y =$ x^3y^4



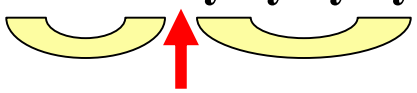
$x^3 \cdot y^4$

$3 \cdot 2 \cdot a \cdot a \cdot a \cdot a \cdot a \cdot b \cdot c \cdot c \cdot c \cdot c =$ _____

Algebra I Unit 1 Exponents and Factors

Simplifying Algebraic Expressions

$x \cdot x \cdot x \cdot y \cdot y \cdot y \cdot y =$ x^3y^4



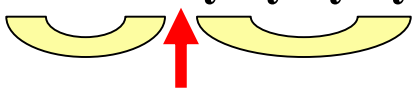
$x^3 \cdot y^4$

$3 \cdot 2 \cdot a \cdot a \cdot a \cdot a \cdot a \cdot b \cdot c \cdot c \cdot c \cdot c =$ _____

Algebra I Unit 1 Exponents and Factors

Simplifying Algebraic Expressions

$x \cdot x \cdot x \cdot y \cdot y \cdot y \cdot y =$ x^3y^4



$x^3 \quad \cdot \quad y^4$

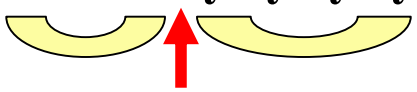
$3 \cdot 2 \cdot a \cdot a \cdot a \cdot a \cdot a \cdot b \cdot c \cdot c \cdot c \cdot c =$ _____

6

Algebra I Unit 1 Exponents and Factors

Simplifying Algebraic Expressions

$x \cdot x \cdot x \cdot y \cdot y \cdot y \cdot y =$ x^3y^4



$x^3 \cdot y^4$

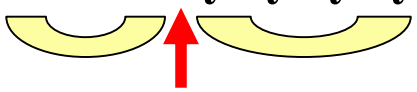
$3 \cdot 2 \cdot a \cdot a \cdot a \cdot a \cdot a \cdot b \cdot c \cdot c \cdot c \cdot c =$ _____

6

Algebra I Unit 1 Exponents and Factors

Simplifying Algebraic Expressions

$x \cdot x \cdot x \cdot y \cdot y \cdot y \cdot y =$ x^3y^4



$x^3 \cdot y^4$

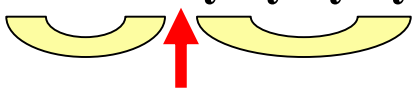
$3 \cdot 2 \cdot a \cdot a \cdot a \cdot a \cdot a \cdot b \cdot c \cdot c \cdot c \cdot c =$ _____

$6 \quad a^5$

Algebra I Unit 1 Exponents and Factors

Simplifying Algebraic Expressions

$x \cdot x \cdot x \cdot y \cdot y \cdot y \cdot y =$ x^3y^4



$x^3 \cdot y^4$

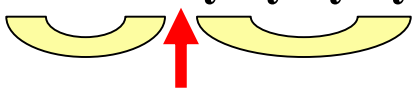
$3 \cdot 2 \cdot a \cdot a \cdot a \cdot a \cdot a \cdot b \cdot c \cdot c \cdot c \cdot c =$ _____

$6 \quad a^5$

Algebra I Unit 1 Exponents and Factors

Simplifying Algebraic Expressions

$x \cdot x \cdot x \cdot y \cdot y \cdot y \cdot y =$ x^3y^4



$x^3 \cdot y^4$

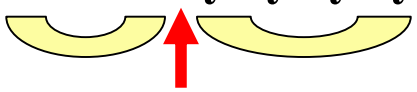
$3 \cdot 2 \cdot a \cdot a \cdot a \cdot a \cdot a \cdot b \cdot c \cdot c \cdot c \cdot c =$ _____

$6 \quad a^5 \quad c^4$

Algebra I Unit 1 Exponents and Factors

Simplifying Algebraic Expressions

$x \cdot x \cdot x \cdot y \cdot y \cdot y \cdot y =$ x^3y^4



$x^3 \cdot y^4$

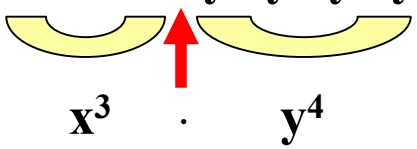
$3 \cdot 2 \cdot a \cdot a \cdot a \cdot a \cdot a \cdot b \cdot c \cdot c \cdot c \cdot c =$ _____

$6 \quad a^5 \quad b \quad c^4$

Algebra I Unit 1 Exponents and Factors

Simplifying Algebraic Expressions

$x \cdot x \cdot x \cdot y \cdot y \cdot y \cdot y =$ x^3y^4



$x^3 \cdot y^4$

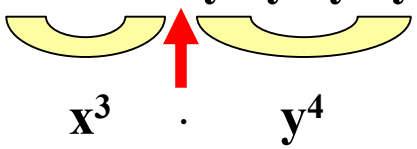
$3 \cdot 2 \cdot a \cdot a \cdot a \cdot a \cdot a \cdot b \cdot c \cdot c \cdot c \cdot c =$ _____

$6 \cdot a^5 \cdot b \cdot c^4$

Algebra I Unit 1 Exponents and Factors

Simplifying Algebraic Expressions

$x \cdot x \cdot x \cdot y \cdot y \cdot y \cdot y =$ x^3y^4



$x^3 \cdot y^4$

$3 \cdot 2 \cdot a \cdot a \cdot a \cdot a \cdot a \cdot b \cdot c \cdot c \cdot c \cdot c =$ $6a^5bc^4$

$6 \cdot a^5 \cdot b \cdot c^4$

Algebra I Unit 1 Properties of Zero

Algebra I Unit 1 Properties of Zero

Zero and Addition

Algebra I Unit 1 Properties of Zero

Zero and Addition

7 + 0 = 7 **5 + 0 = 5** **0 + 3 = 3** **0 + 8 = 8**

Algebra I Unit 1 Properties of Zero

Zero and Addition

7 + 0 = 7 **5 + 0 = 5** **0 + 3 = 3** **0 + 8 = 8**

Rule: x + 0 = x and 0 + x = x.

Algebra I Unit 1 Properties of Zero

Zero and Addition

$7 + 0 = 7$ $\quad$ $5 + 0 = 5$ $\quad$ $0 + 3 = 3$ $\quad$ $0 + 8 = 8$

Rule: $x + 0 = x$ **and** $0 + x = x$.

The Identity Law of Addition

Algebra I Unit 1 Properties of Zero

Zero and Addition

Algebra I Unit 1 Properties of Zero

Zero and Addition

8 + -8 = 0 **3 + -3 = 0** **-2 + 2 = 0** **-5 + 5 = 0**

Algebra I Unit 1 Properties of Zero

Zero and Addition

8 + -8 = 0 **3 + -3 = 0** **-2 + 2 = 0** **-5 + 5 = 0**

Rule: x + -x = 0

Algebra I Unit 1 Properties of Zero

Zero and Addition

$8 + -8 = 0$ $3 + -3 = 0$ $-2 + 2 = 0$ $-5 + 5 = 0$

Rule: $x + -x = 0$

The Inverse Law of Addition

Algebra I Unit 1 Properties of Zero

Zero and Subtraction

Algebra I Unit 1 Properties of Zero

Zero and Subtraction

7 – 0 = 7 **5 – 0 = 5**

Algebra I Unit 1 Properties of Zero

Zero and Subtraction

7 – 0 = 7 **5 – 0 = 5** **0 – 3 = -3** **0 – 8 = -8**

Algebra I Unit 1 Properties of Zero

Zero and Subtraction

7 – 0 = 7 **5 – 0 = 5** **0 – 3 = -3** **0 – 8 = -8**

Rule: x – 0 = x

Algebra I Unit 1 Properties of Zero

Zero and Subtraction

7 – 0 = 7 **5 – 0 = 5** **0 – 3 = -3** **0 – 8 = -8**

Rule: x – 0 = x and 0 – x = -x

Algebra I Unit 1 Properties of Zero

Zero and Division

Algebra I Unit 1 Properties of Zero

Zero and Division

Consider the division problem 18 ÷ 6.

Algebra I Unit 1 Properties of Zero

Zero and Division

Consider the division problem 18 ÷ 6. The answer is 3 because

Algebra I Unit 1 Properties of Zero

Zero and Division

Consider the division problem $18 \div 6$. The answer is 3 because $3 \cdot 6 = 18$.

Algebra I Unit 1 Properties of Zero

Zero and Division

Consider the division problem $18 \div 6$. The answer is 3 because $3 \cdot 6 = 18$.

Now try the division problem $5 \div 0$.

Algebra I Unit 1 Properties of Zero

Zero and Division

Consider the division problem $18 \div 6$. The answer is 3 because $3 \cdot 6 = 18$.

Now try the division problem $5 \div 0$.
The answer, if it exists, must multiply by 0 to give a product of 5.

Algebra I Unit 1 Properties of Zero

Zero and Division

Consider the division problem $18 \div 6$. The answer is 3 because $3 \cdot 6 = 18$.

Now try the division problem $5 \div 0$.
The answer, if it exists, must multiply by 0 to give a product of 5.
Clearly this number does not exist !!

Algebra I Unit 1 Properties of Zero

Zero and Division

Consider the division problem $18 \div 6$. The answer is 3 because $3 \cdot 6 = 18$.

Now try the division problem $5 \div 0$.
The answer, if it exists, must multiply by 0 to give a product of 5.
Clearly this number does not exist !! We say that $5 \div 0$ is undefined.

Algebra I Unit 1 Properties of Zero

Zero and Division

Consider the division problem $18 \div 6$. The answer is 3 because $3 \cdot 6 = 18$.

Now try the division problem $5 \div 0$.
The answer, if it exists, must multiply by 0 to give a product of 5.
Clearly this number does not exist !! We say that $5 \div 0$ is undefined.

Now try the division problem $0 \div 0$.

Algebra I Unit 1 Properties of Zero

Zero and Division

Consider the division problem $18 \div 6$. The answer is 3 because $3 \cdot 6 = 18$.

Now try the division problem $5 \div 0$.
The answer, if it exists, must multiply by 0 to give a product of 5.
Clearly this number does not exist !! We say that $5 \div 0$ is undefined.

Now try the division problem $0 \div 0$.
The answer, if it exists, must multiply by 0 to give a product of 0.

Algebra I Unit 1 Properties of Zero

Zero and Division

Consider the division problem $18 \div 6$. The answer is 3 because $3 \cdot 6 = 18$.

Now try the division problem $5 \div 0$.
The answer, if it exists, must multiply by 0 to give a product of 5.
Clearly this number does not exist !! We say that $5 \div 0$ is undefined.

Now try the division problem $0 \div 0$.
The answer, if it exists, must multiply by 0 to give a product of 0.
Clearly, any number works !!

Algebra I Unit 1 Properties of Zero

Zero and Division

Consider the division problem $18 \div 6$. The answer is 3 because $3 \cdot 6 = 18$.

Now try the division problem $5 \div 0$.
The answer, if it exists, must multiply by 0 to give a product of 5.
Clearly this number does not exist !! We say that $5 \div 0$ is undefined.

Now try the division problem $0 \div 0$.
The answer, if it exists, must multiply by 0 to give a product of 0.
Clearly, any number works !! We say that $0 \div 0$ is also undefined.

Algebra I Unit 1 Properties of Zero

Zero and Division

Consider the division problem $18 \div 6$. The answer is 3 because $3 \cdot 6 = 18$.

Now try the division problem $5 \div 0$.
The answer, if it exists, must multiply by 0 to give a product of 5.
Clearly this number does not exist !! We say that $5 \div 0$ is undefined.

Now try the division problem $0 \div 0$.
The answer, if it exists, must multiply by 0 to give a product of 0.
Clearly, any number works !! We say that $0 \div 0$ is also undefined.

Rule: Division by zero is undefined.

Algebra I Unit 1 Properties of Zero

Zero and Division

Consider the division problem $18 \div 6$. The answer is 3 because $3 \cdot 6 = 18$.

Now try the division problem $5 \div 0$.
The answer, if it exists, must multiply by 0 to give a product of 5.
Clearly this number does not exist !! We say that $5 \div 0$ is undefined.

Now try the division problem $0 \div 0$.
The answer, if it exists, must multiply by 0 to give a product of 0.
Clearly, any number works !! We say that $0 \div 0$ is also undefined.

Rule: Division by zero is undefined.

Consider the division problem $0 \div 5$.

Algebra I Unit 1 Properties of Zero

Zero and Division

Consider the division problem $18 \div 6$. The answer is 3 because $3 \cdot 6 = 18$.

Now try the division problem $5 \div 0$.
The answer, if it exists, must multiply by 0 to give a product of 5.
Clearly this number does not exist !! We say that $5 \div 0$ is undefined.

Now try the division problem $0 \div 0$.
The answer, if it exists, must multiply by 0 to give a product of 0.
Clearly, any number works !! We say that $0 \div 0$ is also undefined.

Rule: Division by zero is undefined.

Consider the division problem $0 \div 5$.
The answer, if it exists must multiply by 5 to give a product of 0.

Algebra I Unit 1 Properties of Zero

Zero and Division

Consider the division problem $18 \div 6$. The answer is 3 because $3 \cdot 6 = 18$.

Now try the division problem $5 \div 0$.
The answer, if it exists, must multiply by 0 to give a product of 5.
Clearly this number does not exist !! We say that $5 \div 0$ is undefined.

Now try the division problem $0 \div 0$.
The answer, if it exists, must multiply by 0 to give a product of 0.
Clearly, any number works !! We say that $0 \div 0$ is also undefined.

Rule: Division by zero is undefined.

Consider the division problem $0 \div 5$.
The answer, if it exists must multiply by 5 to give a product of 0.
Clearly the answer is 0.

Algebra I Unit 1 Properties of Zero

Zero and Division

Consider the division problem $18 \div 6$. The answer is 3 because $3 \cdot 6 = 18$.

Now try the division problem $5 \div 0$.
The answer, if it exists, must multiply by 0 to give a product of 5.
Clearly this number does not exist !! We say that $5 \div 0$ is undefined.

Now try the division problem $0 \div 0$.
The answer, if it exists, must multiply by 0 to give a product of 0.
Clearly, any number works !! We say that $0 \div 0$ is also undefined.

Rule: Division by zero is undefined.

Consider the division problem $0 \div 5$.
The answer, if it exists must multiply by 5 to give a product of 0.
Clearly the answer is 0. Similarly, $0 \div 8 = 0$ and $0 \div 7 = 0$.

Algebra I Unit 1 Properties of Zero

Zero and Division

Consider the division problem $18 \div 6$. The answer is 3 because $3 \cdot 6 = 18$.

Now try the division problem $5 \div 0$.
The answer, if it exists, must multiply by 0 to give a product of 5.
Clearly this number does not exist !! We say that $5 \div 0$ is undefined.

Now try the division problem $0 \div 0$.
The answer, if it exists, must multiply by 0 to give a product of 0.
Clearly, any number works !! We say that $0 \div 0$ is also undefined.

Rule: Division by zero is undefined.

Consider the division problem $0 \div 5$.
The answer, if it exists must multiply by 5 to give a product of 0.
Clearly the answer is 0. Similarly, $0 \div 8 = 0$ and $0 \div 7 = 0$.

Rule: If $x \neq 0$, then $0 \div x = 0$.

Algebra I Unit 1 Properties of Zero

Zero and Division

Consider the division problem $18 \div 6$. The answer is 3 because $3 \cdot 6 = 18$.

Now try the division problem $5 \div 0$.
The answer, if it exists, must multiply by 0 to give a product of 5.
Clearly this number does not exist !! We say that $5 \div 0$ is undefined.

Now try the division problem $0 \div 0$.
The answer, if it exists, must multiply by 0 to give a product of 0.
Clearly, any number works !! We say that $0 \div 0$ is also undefined.

Rule: Division by zero is undefined.

Consider the division problem $0 \div 5$.
The answer, if it exists must multiply by 5 to give a product of 0.
Clearly the answer is 0. Similarly, $0 \div 8 = 0$ and $0 \div 7 = 0$.

Rule: If $x \neq 0$, then $0 \div x = 0$. (Zero divided by any other number is zero.)

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p =$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y =$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b =$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y =$

5. $(3x)(4x) =$

6. $(3x)(4y) =$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p =$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y =$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b =$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y =$

5. $(3x)(4x) =$

6. $(3x)(4y) =$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y =$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b =$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y =$

5. $(3x)(4x) =$

6. $(3x)(4y) =$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y =$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b =$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y =$

5. $(3x)(4x) =$

6. $(3x)(4y) =$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y =$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b =$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y =$

5. $(3x)(4x) =$

6. $(3x)(4y) =$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y = x^5$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b =$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y =$

5. $(3x)(4x) =$

6. $(3x)(4y) =$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y = x^5$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b =$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y =$

5. $(3x)(4x) =$

6. $(3x)(4y) =$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y = x^5y^3$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b =$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y =$

5. $(3x)(4x) =$

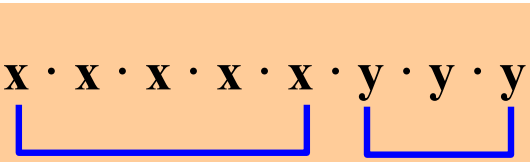
6. $(3x)(4y) =$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y = x^5y^3$



3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b =$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y =$

5. $(3x)(4x) =$

6. $(3x)(4y) =$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y = x^5y^3$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b =$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y =$

5. $(3x)(4x) =$

6. $(3x)(4y) =$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y = x^5y^3$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b =$

   $(5 \cdot 3)$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y =$

5. $(3x)(4x) =$

6. $(3x)(4y) =$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y = x^5y^3$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b = 15$

   $(5 \cdot 3)$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y =$

5. $(3x)(4x) =$

6. $(3x)(4y) =$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y = x^5y^3$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b = 15$

   $(5 \cdot 3) \cdot (a \cdot a)$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y =$

5. $(3x)(4x) =$

6. $(3x)(4y) =$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y = x^5y^3$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b = 15a^2$

   $(5 \cdot 3) \cdot (a \cdot a)$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y =$

5. $(3x)(4x) =$

6. $(3x)(4y) =$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y = x^5y^3$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b = 15a^2$

   $(5 \cdot 3) \cdot (a \cdot a) \cdot (b \cdot b \cdot b)$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y =$

5. $(3x)(4x) =$

6. $(3x)(4y) =$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y = x^5y^3$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b = 15a^2b^3$

   $(5 \cdot 3) \cdot (a \cdot a) \cdot (b \cdot b \cdot b)$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y =$

5. $(3x)(4x) =$

6. $(3x)(4y) =$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y = x^5y^3$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b = 15a^2b^3$

   $(5 \cdot 3) \cdot (a \cdot a) \cdot (b \cdot b \cdot b)$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y =$

5. $(3x)(4x) =$

6. $(3x)(4y) =$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y = x^5y^3$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b = 15a^2b^3$

   $(5 \cdot 3) \cdot (a \cdot a) \cdot (b \cdot b \cdot b)$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y =$

5. $(3x)(4x) =$

6. $(3x)(4y) =$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y = x^5y^3$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b = 15a^2b^3$

   $(5 \cdot 3) \cdot (a \cdot a) \cdot (b \cdot b \cdot b)$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y =$

   $(2 \cdot 4)$

5. $(3x)(4x) =$

6. $(3x)(4y) =$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y = x^5y^3$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b = 15a^2b^3$

   $(5 \cdot 3) \cdot (a \cdot a) \cdot (b \cdot b \cdot b)$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y = 8$

   $(2 \cdot 4)$

5. $(3x)(4x) =$

6. $(3x)(4y) =$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y = x^5y^3$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b = 15a^2b^3$

   $(5 \cdot 3) \cdot (a \cdot a) \cdot (b \cdot b \cdot b)$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y = 8$

   $(2 \cdot 4) \cdot (x \cdot x \cdot x \cdot x \cdot x)$

5. $(3x)(4x) =$

6. $(3x)(4y) =$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y = x^5y^3$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b = 15a^2b^3$

   $(5 \cdot 3) \cdot (a \cdot a) \cdot (b \cdot b \cdot b)$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y = 8x^5$

   $(2 \cdot 4) \cdot (x \cdot x \cdot x \cdot x \cdot x)$

5. $(3x)(4x) =$

6. $(3x)(4y) =$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y = x^5y^3$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b = 15a^2b^3$

   $(5 \cdot 3) \cdot (a \cdot a) \cdot (b \cdot b \cdot b)$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y = 8x^5$

   $(2 \cdot 4) \cdot (x \cdot x \cdot x \cdot x \cdot x) \cdot y$

5. $(3x)(4x) =$

6. $(3x)(4y) =$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y = x^5y^3$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b = 15a^2b^3$

   $(5 \cdot 3) \cdot (a \cdot a) \cdot (b \cdot b \cdot b)$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y = 8x^5y$

   $(2 \cdot 4) \cdot (x \cdot x \cdot x \cdot x \cdot x) \cdot y$

5. $(3x)(4x) =$

6. $(3x)(4y) =$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y = x^5y^3$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b = 15a^2b^3$

   $(5 \cdot 3) \cdot (a \cdot a) \cdot (b \cdot b \cdot b)$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y = 8x^5y$

   $(2 \cdot 4) \cdot (x \cdot x \cdot x \cdot x \cdot x) \cdot y$

5. $(3x)(4x) =$

6. $(3x)(4y) =$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y = x^5y^3$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b = 15a^2b^3$

   $(5 \cdot 3) \cdot (a \cdot a) \cdot (b \cdot b \cdot b)$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y = 8x^5y$

   $(2 \cdot 4) \cdot (x \cdot x \cdot x \cdot x \cdot x) \cdot y$

5. $(3x)(4x) =$

6. $(3x)(4y) =$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y = x^5y^3$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b = 15a^2b^3$

   $(5 \cdot 3) \cdot (a \cdot a) \cdot (b \cdot b \cdot b)$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y = 8x^5y$

   $(2 \cdot 4) \cdot (x \cdot x \cdot x \cdot x \cdot x) \cdot y$

5. $(3x)(4x) =$

   $(3 \cdot x)$

6. $(3x)(4y) =$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y = x^5y^3$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b = 15a^2b^3$

   $(5 \cdot 3) \cdot (a \cdot a) \cdot (b \cdot b \cdot b)$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y = 8x^5y$

   $(2 \cdot 4) \cdot (x \cdot x \cdot x \cdot x \cdot x) \cdot y$

5. $(3x)(4x) =$

   $(3 \cdot x) \cdot (4 \cdot x)$

6. $(3x)(4y) =$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y = x^5y^3$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b = 15a^2b^3$

   $(5 \cdot 3) \cdot (a \cdot a) \cdot (b \cdot b \cdot b)$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y = 8x^5y$

   $(2 \cdot 4) \cdot (x \cdot x \cdot x \cdot x \cdot x) \cdot y$

5. $(3x)(4x) =$

   $(3 \cdot x) \cdot (4 \cdot x) = (3 \cdot 4)$

6. $(3x)(4y) =$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y = x^5y^3$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b = 15a^2b^3$

   $(5 \cdot 3) \cdot (a \cdot a) \cdot (b \cdot b \cdot b)$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y = 8x^5y$

   $(2 \cdot 4) \cdot (x \cdot x \cdot x \cdot x \cdot x) \cdot y$

5. $(3x)(4x) = 12$

   $(3 \cdot x) \cdot (4 \cdot x) = (3 \cdot 4)$

6. $(3x)(4y) =$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y = x^5y^3$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b = 15a^2b^3$

   $(5 \cdot 3) \cdot (a \cdot a) \cdot (b \cdot b \cdot b)$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y = 8x^5y$

   $(2 \cdot 4) \cdot (x \cdot x \cdot x \cdot x \cdot x) \cdot y$

5. $(3x)(4x) = 12$

   $(3 \cdot x) \cdot (4 \cdot x) = (3 \cdot 4) \cdot (x \cdot x)$

6. $(3x)(4y) =$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y = x^5y^3$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b = 15a^2b^3$

   $(5 \cdot 3) \cdot (a \cdot a) \cdot (b \cdot b \cdot b)$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y = 8x^5y$

   $(2 \cdot 4) \cdot (x \cdot x \cdot x \cdot x \cdot x) \cdot y$

5. $(3x)(4x) = 12x^2$

   $(3 \cdot x) \cdot (4 \cdot x) = (3 \cdot 4) \cdot (x \cdot x)$

6. $(3x)(4y) =$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y = x^5y^3$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b = 15a^2b^3$

   $(5 \cdot 3) \cdot (a \cdot a) \cdot (b \cdot b \cdot b)$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y = 8x^5y$

   $(2 \cdot 4) \cdot (x \cdot x \cdot x \cdot x \cdot x) \cdot y$

5. $(3x)(4x) = 12x^2$

   $(3 \cdot x) \cdot (4 \cdot x) = (3 \cdot 4) \cdot (x \cdot x)$

6. $(3x)(4y) =$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y = x^5y^3$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b = 15a^2b^3$

   $(5 \cdot 3) \cdot (a \cdot a) \cdot (b \cdot b \cdot b)$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y = 8x^5y$

   $(2 \cdot 4) \cdot (x \cdot x \cdot x \cdot x \cdot x) \cdot y$

5. $(3x)(4x) = 12x^2$

   $(3 \cdot x) \cdot (4 \cdot x) = (3 \cdot 4) \cdot (x \cdot x)$

6. $(3x)(4y) =$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y = x^5y^3$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b = 15a^2b^3$

   $(5 \cdot 3) \cdot (a \cdot a) \cdot (b \cdot b \cdot b)$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y = 8x^5y$

   $(2 \cdot 4) \cdot (x \cdot x \cdot x \cdot x \cdot x) \cdot y$

5. $(3x)(4x) = 12x^2$

   $(3 \cdot x) \cdot (4 \cdot x) = (3 \cdot 4) \cdot (x \cdot x)$

6. $(3x)(4y) =$

   $(3 \cdot x)$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y = x^5y^3$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b = 15a^2b^3$

   $(5 \cdot 3) \cdot (a \cdot a) \cdot (b \cdot b \cdot b)$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y = 8x^5y$

   $(2 \cdot 4) \cdot (x \cdot x \cdot x \cdot x \cdot x) \cdot y$

5. $(3x)(4x) = 12x^2$

   $(3 \cdot x) \cdot (4 \cdot x) = (3 \cdot 4) \cdot (x \cdot x)$

6. $(3x)(4y) =$

   $(3 \cdot x) \cdot (4 \cdot y)$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p =$ p^8

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y =$ x^5y^3

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b =$ $15a^2b^3$

   $(5 \cdot 3) \cdot (a \cdot a) \cdot (b \cdot b \cdot b)$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y =$ $8x^5y$

   $(2 \cdot 4) \cdot (x \cdot x \cdot x \cdot x \cdot x) \cdot y$

5. $(3x)(4x) =$ $12x^2$

   $(3 \cdot x) \cdot (4 \cdot x) = (3 \cdot 4) \cdot (x \cdot x)$

6. $(3x)(4y) =$

   $(3 \cdot x) \cdot (4 \cdot y) = (3 \cdot 4)$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

2. $x \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y = x^5y^3$

3. $5 \cdot a \cdot a \cdot 3 \cdot b \cdot b \cdot b = 15a^2b^3$

   $(5 \cdot 3) \cdot (a \cdot a) \cdot (b \cdot b \cdot b)$

4. $2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot 4 \cdot y = 8x^5y$

   $(2 \cdot 4) \cdot (x \cdot x \cdot x \cdot x \cdot x) \cdot y$

5. $(3x)(4x) = 12x^2$

   $(3 \cdot x) \cdot (4 \cdot x) = (3 \cdot 4) \cdot (x \cdot x)$

6. $(3x)(4y) = 12$

   $(3 \cdot x) \cdot (4 \cdot y) = (3 \cdot 4)$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

1. $p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p \cdot p = p^8$

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   $(5 \cdot 3) \cdot (a \cdot a) \cdot (b \cdot b \cdot b)$

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   $(2 \cdot 4) \cdot (x \cdot x \cdot x \cdot x \cdot x) \cdot y$

5. $(3x)(4x) = 12x^2$

   $(3 \cdot x) \cdot (4 \cdot x) = (3 \cdot 4) \cdot (x \cdot x)$

6. $(3x)(4y) = 12xy$

   $(3 \cdot x) \cdot (4 \cdot y) = (3 \cdot 4) \cdot (x \cdot y)$

Algebra I Class Worksheet #4 Unit 1

Simplify each of the following. (Remember that you can change the order and the grouping of the factors using the commutative and the associative properties of multiplication.)

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   $(2 \cdot 4) \cdot (x \cdot x \cdot x \cdot x \cdot x) \cdot y$

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Algebra I Class Worksheet #4 Unit 1

Find the value of each expression. If the value cannot be found, write 'not possible'. (Evaluate means to 'find the value of '.)

7. $2^5 =$

8. $1^3 =$

9. $4^1 =$

10. $10^3 =$

11. $0 \div 8 =$

12. $8 \div 0 =$

Algebra I Class Worksheet #4 Unit 1

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Algebra I Class Worksheet #4 Unit 1

Find the value of each expression. If the value cannot be found, write 'not possible'. (Evaluate means to 'find the value of '.)

7. $2^5 =$ **32**

$2 \cdot 2 \cdot 2 \cdot 2 \cdot 2$

8. $1^3 =$

9. $4^1 =$

10. $10^3 =$

11. $0 \div 8 =$

12. $8 \div 0 =$

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$10 \cdot 10 \cdot 10$

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10. $10^3 =$ **1,000**

$10 \cdot 10 \cdot 10$

11. $0 \div 8 =$

12. $8 \div 0 =$

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$10 \cdot 10 \cdot 10$

11. $0 \div 8 =$ **0**

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11. $0 \div 8 =$ **0**

12. $8 \div 0 =$ **not possible**

Algebra I Class Worksheet #4 Unit 1

Find the value of each expression when x = 5. If the value cannot be found, write 'not possible'. (Evaluate means to 'find the value of '.)

13. $x \div 5 =$

14. $\frac{x - 5}{x + 5} =$

15. $(x + 5)(x - 5) =$

16. $5 \div (x - 5) =$

Algebra I Class Worksheet #4 Unit 1

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13. $x \div 5 =$ **1**

$5 \div 5$

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Good luck on your homework !!

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$10 \cdot 0$

16. $5 \div (x - 5) =$ **not possible**

$5 \div 0$