Writing numbers in scientific notation

Provide the scientific notation for each value.

1. 7,990,000 = _____
2. 62,000 = _____
3. 779,600,000 = _____
4. 3,550,000 = _____
5. 95,000 = _____
6. 144,000 = _____
7. 129,000 = _____
8. 3,600 = _____
9. 190,000 = _____
10. 7,400 = _____

Reading numbers in scientific notation

Write the numbers in normal form.

1. $2.08 \times 10^{7} =$ _____

2. $7.48 \times 10^{8} =$ _____

3. $1 \times 10^{2} =$ _____

4. $3.006 \times 10^{8} =$ _____

5. $8.3 \times 10^{2} =$ _____

6. $3.6 \times 10^{6} =$ _____

7. $4.61 \times 10^{6} =$ _____

8. $8.738 \times 10^{8} =$ _____

9. $7.5 \times 10^{3} =$ _____

10. $6.896 \times 10^{6} =$ _____

Proportions word problems

Grade 6 Proportions Worksheet

1) 24 loaves of bread cost $48. How much does 10 loaves cost?

2) A chef made 30 donuts in 60 minutes. How long would it take him to make 90 donuts?

3) Four big water bottles can hold 8 gallons of water. How much water can ten big water bottles hold?

4) It took Nora 10 hours to walk a 30-mile trail. How long did it take her to walk 9 miles at the same speed?

5) The total weight of 15 boxes is 45 pounds. How much would 40 boxes weigh?

6) A pack of six cans of coffee cost $12. How much would 15 cans of coffee cost?

PEMDAS

Order of Operations Worksheet

Solve the following.

$2^3 + 5 \times 5 - 12 \div 6 =$

$7^2 \times 4 - 10 - 1 + 11 =$

$11 \times 12 - 3 + 2^2 \times 5 =$

$12 \times 1 + 4^3 + 1 - 11 =$

$3 + 9^2 \div 3 - 3 \times 2 =$

$11 \times 4 + 5^3 - 9 \div 3 =$

$12 \div 4 + 12 - 8 \div 2 =$

$3^3 \times 1 \times 7 - 6 + 3^2 =$

$8 \times 1 + 10^3 - 10 \times 6 =$

$5^2 \times 7 + 12 \div 4 \times 9 =$

Name : _____

Integers

Simplify.

1) $9 \times (-4) =$ _____

2) $(-16) + 17 =$ _____

3) $(-12) - 5 =$ _____

4) $(-9) \div (-3) =$ _____

5) $(-14) + (-1) =$ _____

6) $(-6) \times 0 =$ _____

7) $20 \div (-2) =$ _____

8) $14 - 13 =$ _____

9) $4 + 5 =$ _____

10) $(-6) \times (-7) =$ _____

11) $(-15) \div 3 =$ _____

12) $11 + (-19) =$ _____

13) $(-17) - (-19) =$ _____

14) $8 \div 1 =$ _____

15) $2 \times 7 =$ _____

16) $18 - (-10) =$ _____

Name : _____

Order of Operations

Solve.

1) $5 + 8 \div 2 - 7$

Ans =

2) $12 \times 3 - 42 + 20$

Ans =

3) $4 \div 1 + 8 \times 2$

Ans =

4) $17 \times 3 + 15 \div 3$

Ans =

5) $29 - 6 \times 5 + 14$

Ans =

6) $31 \times 2 - 54 - 3$

Ans =

7) $16 \div 8 + 5 + 17$

Ans =

8) $28 + 4 \times 5 \div 5$

Ans =

9) $32 + 9 \times 6 - 84$

Ans =

10) $62 - 33 \div 3 + 14$

Ans =

Name : _____

Evaluate the Expressions - Single Variable

Evaluate each algebraic expression for the given value of the variable.

1) $16 - x$ at $x = 5$

2) $3n$ at $n = 11$

3) p^3 at $p = 2$

4) $r + 4$ at $r = 13$

5) $\frac{4}{m} + 1$ at $m = 1$

6) $c - 9$ at $c = 16$

7) b^2 at $b = 4$

8) $\frac{y}{5}$ at $y = 15$

9) $\frac{27}{s}$ at $s = 9$

10) $\frac{q}{3} + 4$ at $q = 3$

Name : _____

Function Table

Complete the function tables.

1)

z	$z^2(z+3)$
−2	
−1	
−3	
1	
2	

2)

v	$v^2 - 10$
5	
−8	
6	
−10	
4	

3)

c	$\frac{c}{4} - 2$
24	
36	
12	
80	
8	

4)

q	$2q + 1$
3	
7	
2	
10	
1	

5)

b	$(b+5)(b+2)$
4	
−2	
1	
5	
−1	

6)

n	$\frac{16}{n+1}$
7	
0	
3	
15	
1	

Name : _____

Simplifying Linear Expressions

Simplify each expression.

1) $10x - 8x + 2 + 10$

2) $3a + 7 + 2(3 + a)$

3) $3(m - 5) + m$

4) $2s + 10 - 7s - 8 + 3s - 7$

5) $8c - 4 - 2c + 5$

6) $-4 + 7z + 3 - 2z$

7) $15 + 4(5y - 10)$

8) $2d + 17 - 3 - 2d + 4d$

9) $12n - 8 - 2n + 10 - 4$

10) $8(2k + 1 + 3k)$

11) $4(2b + 2) - 3$

12) $-4 + 8p - 6p - 5 + 20p$

Name : _____

Two-Step Equations: Whole Numbers

Solve each equation.

1) $9c + 1 = 10$

2) $6y - 5 = 7$

3) $8 = 3a - 4$

4) $\frac{m}{5} + 9 = 11$

5) $13 + 7x = 27$

6) $17 - q = 6$

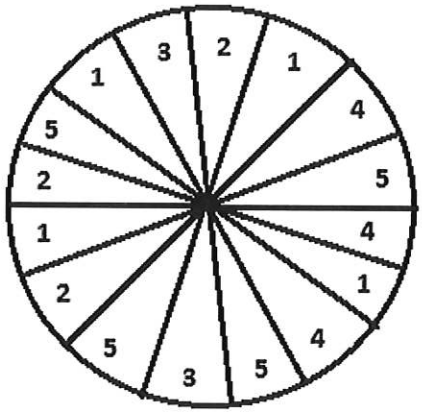
7) $\frac{n - 31}{4} = 2$

8) $1 + 2r = 35$

9) $42 + 5t = 8t$

10) $4p - 3 = 17$

Probability - Spinner



Work Space

What is the probability of choosing an odd number? Answer:	
What is the probability of choosing an even number? Answer:	
What is the probability of choosing a prime number? Answer:	
What is the probability of choosing 1 or 5? Answer:	
What is the probability of choosing 3 or 4? Answer:	

Converting Linear Equations

Convert standard to slope-intercept forms.

1. Standard form: $10x - 7y = -8$

   Slope-intercept form: _____

2. Standard form: $8x + y = 9$

   Slope-intercept form: _____

3. Standard form: $x + 6y = -2$

   Slope-intercept form: _____

4. Standard form: $4x + 3y = 9$

   Slope-intercept form: _____

5. Standard form: $3x + 12y = -8$

   Slope-intercept form: _____

6. Standard form: $x + 2y = -8$

   Slope-intercept form: _____

7. Standard form: $11x - 8y = 3$

   Slope-intercept form: _____

8. Standard form: $4x + 5y = 4$

   Slope-intercept form: _____

9. Standard form: $10x - 12y = -4$

   Slope-intercept form: _____

10. Standard form: $3x - y = 9$

    Slope-intercept form: _____

Linear Equations

Use the given points to determine the slope using $\frac{y_2-y_1}{x_2-x_1}$

Determine the y-intercept using $b = y - mx$. Write the equation in $y = mx + b$ form.

1. Points: $(1, -7)$ $(-5, 0)$

2. Points: $(6, 9)$ $(-4, -2)$

3. Points: $(8, -6)$ $(6, 8)$

4. Points: $(4, 1)$ $(-6, 4)$

5. Points: $(6, -7)$ $(8, 5)$

6. Points: $(8, 7)$ $(-6, 4)$

7. Points: $(5, -6)$ $(-4, 2)$

8. Points: $(-1, 6)$ $(8, 6)$

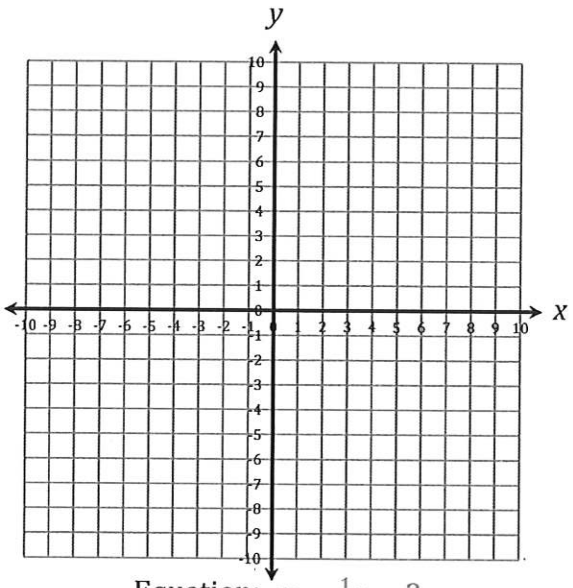
9. Points: $(2, 7)$ $(0, 7)$

10. Points: $(2, -7)$ $(-9, 9)$

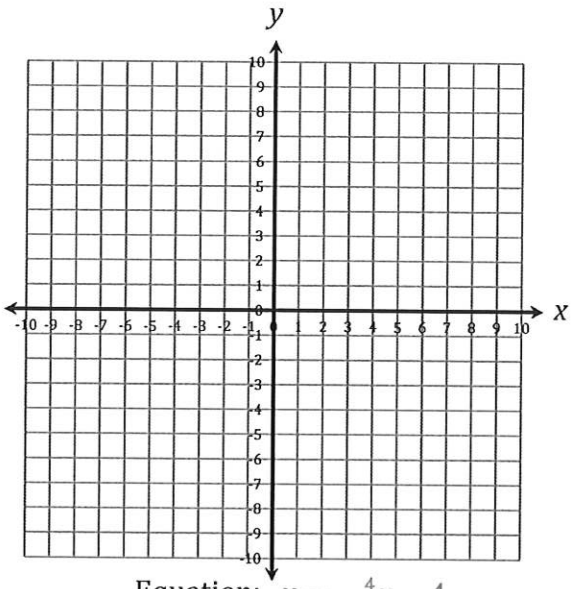
Graphing Linear Equations

Name: _____ Date: _____

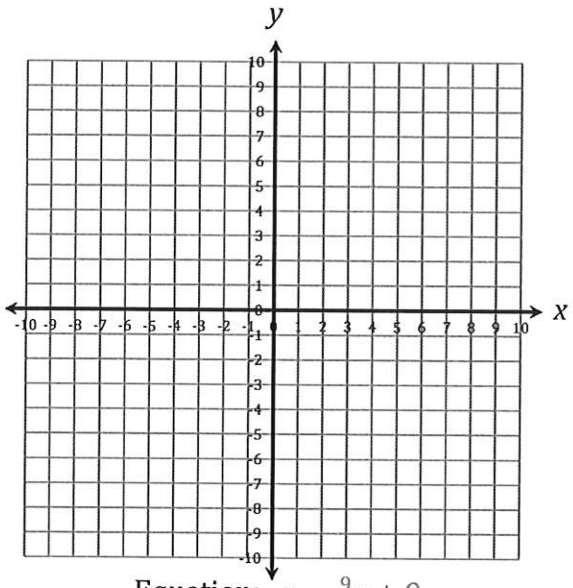
Graph each linear equation.



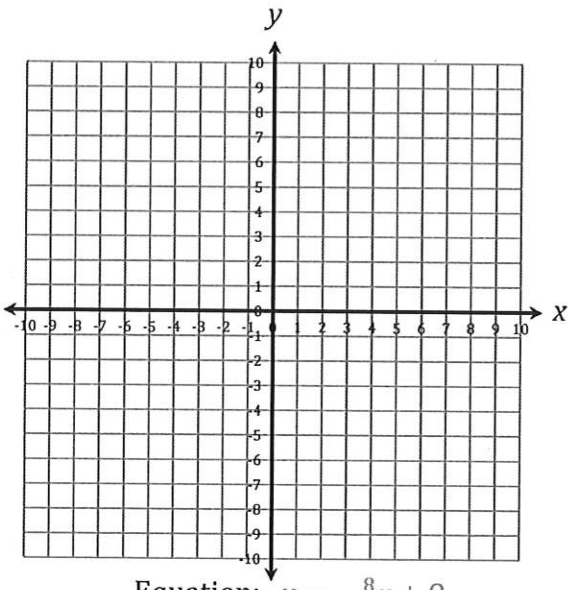
Equation: $y = \frac{1}{2}x - 3$



Equation: $y = -\frac{4}{9}x - 4$



Equation: $y = \frac{9}{7}x + 9$



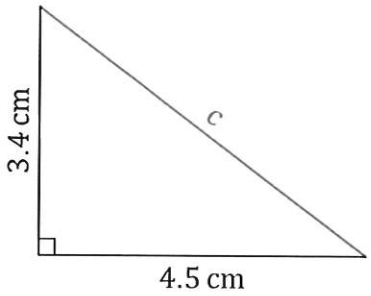
Equation: $y = -\frac{8}{7}x + 8$

Pythagorean Theorem

Name: _____

Calculate the missing side measurement using $a^2 + b^2 = c^2$.

1.



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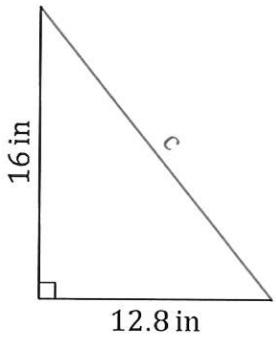

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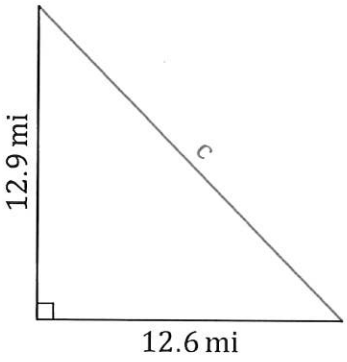

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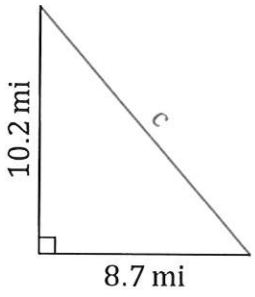

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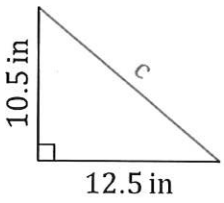

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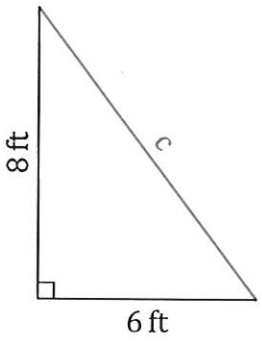
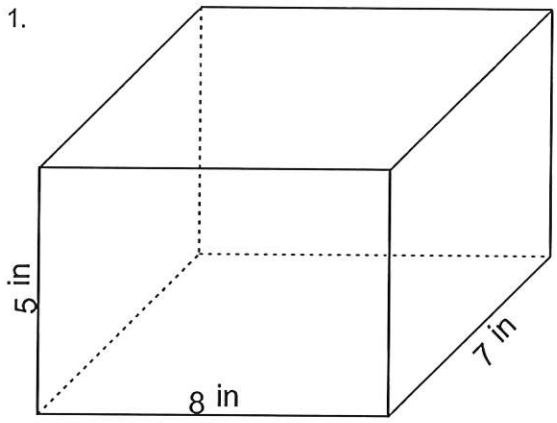


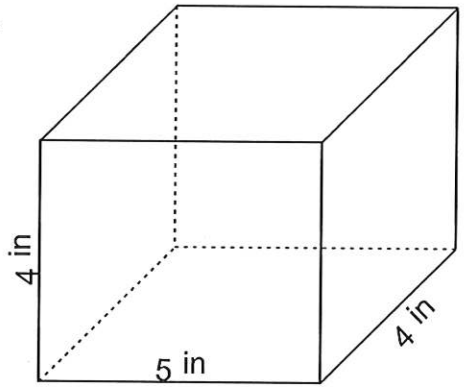
Rectangular prism - volume & surface area

Find the volume and surface area.

1.



2.



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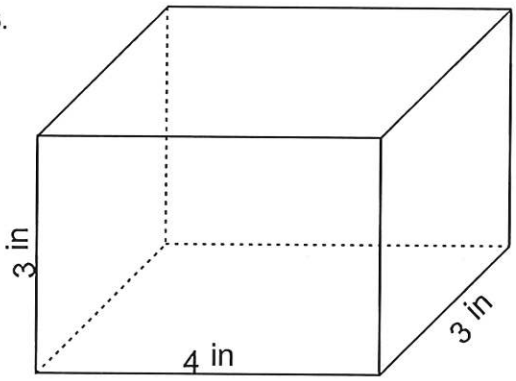

4.