Bel Air Middle School
Summer Math Packet
for
students entering
Integrated Math 7
or
7th Grade Algebra I

As you prepare to start 7th grade and begin Integrated Math 7 or Algebra I, it is important that you are confident in the math skills taught to you during previous courses. This math packet is designed to help you review the prerequisite skills that will help you to be successful in 7th grade. This packet is optional, but we highly recommend that you complete it before starting 7th grade in September.
Note: A copy of this document will be available on the Bel Air Middle School website. Downloading the digital version will enable you to click on the links to go directly to the video helps provided.

Have a wonderful summer!

The BAMS Math Department

Order of Operations

When several operations are indicated in a numerical expression, proceed in the following order:
1. Work within the parentheses or other grouping symbols
2. Expand each power and/or simplify any square roots
3. Multiply and divide (from left to right)
4. Add or subtract (from left to right).

For additional help:
- http://virtualnerd.com/middle-math/number-algebraic-sense/order-operations/

1. $14 \div 7 + 3^2$
2. $42 \div 2(-12 + 9)$
3. $\sqrt{49} + 5$

4. $18 - 30 \div 5$
5. $48 \div (5 + 7) - 9$
6. $4^3 - 5(2) + 13$

Operations with Fractions

- When adding or subtracting fractions, be sure to use a common denominator.
- When multiplying fractions, multiply the numerators (straight across) and multiply the denominators (straight across). Then simplify the fractions.
- When multiplying mixed numbers, change the mixed numbers into improper fractions. Then proceed as you would with simple fractions.
- When dividing fractions, change the divisor to its reciprocal and multiply.

For additional help:
- Adding and subtracting fractions and mixed numbers: http://virtualnerd.com/middle-math/adding-subtracting-fractions/mixed-numbers
- Multiplying and dividing fractions and mixed numbers: http://virtualnerd.com/middle-math/multiplying-dividing-fractions/

1. $\frac{5}{7} - \frac{3}{21}$
2. $3\frac{1}{3} - 1\frac{5}{9}$
3. $3\frac{1}{8} + 5\frac{5}{6}$

4. $5\frac{3}{5} - 2\frac{4}{7}$
5. $4\frac{1}{3} + 2\frac{1}{9} + 5\frac{5}{6}$
6. $7\frac{1}{3} - 2\frac{3}{4} + 4\frac{1}{6}$

7. $\frac{2}{3} * \frac{3}{5}$
8. $3\frac{2}{3} * 1\frac{5}{6}$
9. $13\frac{1}{2}(1\frac{1}{15})$

10. $\frac{1}{3} \div \frac{5}{9}$
11. $2\frac{3}{7} \div 5\frac{1}{5}$
12. $4\frac{2}{3} \div 1\frac{5}{9}$

Operations with Decimals

- When adding or subtracting decimals, be sure to line up the decimals. Annex zeroes as needed to make the numbers line up.
- When multiplying decimals, multiply as though the numbers do not have decimals. Then count the digits that come after the decimals in the factors. Place your decimal in your product so that the same number of digits follow the decimal.

For additional help:
- http://virtualnerd.com/middle-math/decimals/

1. $10.5 - 3.78$

2. $13.2 + .007$

3. $1.75 - 0.04$

4. $(4.5)(3.8)$

5. $(2.45)(1.2)$

6. $3(1.74)$

7. $32.7 \div 0.12$

8. $5.6 \div 3$

9. $1.92 \div 1.2$

10. $1,302/21$

11. $96.15/0.05$

12. $7/9$

Converting between Decimals, Fractions and Percents

EXAMPLE:

*To convert from fractions to decimals

    Divide your fraction (numerator $\div$ denominator) $\rightarrow \frac{3}{4} = 3 \div 4 = 0.75$

*To convert from fractions to percents

    Once the denominator becomes 100, the numerator is your percentage $\rightarrow \frac{4}{5} = \frac{4 \times 20}{5 \times 20} = \frac{80}{100} = 80\%$

*To convert from decimals to fractions

    Place your decimal without the decimal point over the place value $\rightarrow 1.62 = 1\frac{62}{100} = 1\frac{31}{50}$

*To convert from decimals to percents

    Simply move your decimal point to the right twice $\rightarrow 0.003 = 0.3\%$

*To convert from percents to decimals

    Simply move your decimal point to the left twice $\rightarrow 263.2\% = 2.632$

*To convert from percents to fractions

    Place your percentage over 100 and "fix" the fraction so that there are no decimals remaining $\rightarrow$

    $48.5\% = \frac{48.5}{100} = \frac{485}{1000} = \frac{97}{200}$

For additional help:
- http://virtualnerd.com/middle-math/ratios-proportions-percent/percents-decimals-fractions/

	Fraction	Decimal	Percent
1		0.04	
2			125%
3	$\frac{2}{3}$		
4		1.7	
5			0.6%
6	$3\frac{1}{2}$		
7		0.9	
8			70%
9	$\frac{17}{25}$		
10		0.007	

Using Percents

When determining the percent of a number, first convert the percent into a decimal by dividing by 100 (move the decimal in the percent two places to the left). Then multiply the decimal by the number.
- 45% of 240 = 45% x 240 = 0.45 x 240 = 108

To determine a price with sales tax, calculate the sales tax by converting the percent of the tax to a decimal and multiplying it by the price. Then add the tax to the price.
- Tax of 6% on $15. Tax is .06 x 15 = $0.90. Total price with tax is 15.00 + 0.90 = $15.90.

To determine a price with a discount, calculate the discount by converting the percent of the discount to a decimal and multiplying it by the price. Then subtract the discount from the price.
- Discount of 15% on $39. Discount is .15 x 39 = $5.85. Total price after discount is 39 − 5.85 = $33.15.

For additional help:
- http://virtualnerd.com/middle-math/ratios-proportions-percent/percent-number/
- http://virtualnerd.com/middle-math/ratios-proportions-percent/solving-estimating/

Find the percent of each number:

1. 30% of 450

2. 7% of 42

3. 10% of 321

4. 0.5% of 54

5. 165% of 32

6. 25% of 64

7. Susie has just bought a pair of jeans for $45.00, a sweater for $24.00, and a jacket for $85.00. The sales tax is 5%. What is her total bill?

8. Jack bought a set of golf clubs for $250.00 and received a discount of 20%. How much was the discount?

9. A construction manager calculates it will cost $2,890 for materials for her next project. She must add in 10% for scrap and extras. What will be the total cost?

10. The regular price for a video game system is $164.50 but is on sale for 30% off. What is the amount of the discount? What is the sale price?

11. Cindy earns a 15% commission on all sales. On Saturday, she sold $980 worth of merchandise. What was the amount of commission she earned on Saturday?

12. The band had a fundraiser and sold $25,000 worth of candy. They received 40% of this amount for themselves. How much did they receive?

Operations with Integers

Adding and Subtracting:
1st: Rewrite all subtraction as addition by adding the opposite: $2 - 5 = 2 + (-5)$
Then…
- If the integers have the same signs, add their absolute values. The sum will have the same sign of the addends.
  Example: $-2 + -5 = -7$ (Both addends have a negative sign, so the sum is negative.)
- If the integers have different signs, subtract their absolute values. The sum has the sign of the addend with the greater absolute value.
  Example: $2 + -5 = -3$ (Since the addends have different signs, subtract $5 - 2$. The difference is 3. -5 has a greater absolute value than 2, so the sum must be negative.)

Multiplying and Dividing:
- The product or quotient of two integers having the same sign is positive. $(-2 \cdot -5 = 10)$
- The product or quotient of two integers having different signs is negative. $(-2 \cdot 5 = -10)$

For additional help:
- http://virtualnerd.com/middle-math/integers-coordinate-plane/

Evaluate each expression.

1. $-7 + -5$

2. $-17 + 45$

3. $53 + -102$

4. $-8 - (-5)$

5. $12 - 18$

6. $-7 - 12$

7. −(-4) + 8

8. 10 − (-4)

9. -9 − 12 − (-15)

10. -5 • -3

11. -4 • 7

12. 15 • -2

13. 18 ÷ (-20)

14. -45 ÷ -5

15. $\dfrac{-36}{12}$

16. $\dfrac{-4}{-4}$

17. 15 − 13 − (-9)

18. $\dfrac{-4}{2}$

19. -2 + 11 − 7

20. 5 − 3 + 12 − (-9)

21. (-2)(4)(-5)(-1)

Absolute Value

Absolute value refers to the distance of a number from zero. Absolute value is never negative because distance is always positive. The opposite of an absolute value is negative. The absolute value symbols serve as a grouping symbol. Thus, when an operation is performed inside of absolute value symbols, first perform the operation; then find the absolute value.
Examples:
    |2| = 2 |-2| = 2   -|2| = -2 |-2 + 5| = |3| = 3 |-2| + |5| = 2 + 5 = 7

For additional help:
  • http://virtualnerd.com/middle-math/integers-coordinate-plane/integers-absolute-value/

1. |-14|

2. |14|

3. -|-14|

4. |-14 + 6|

5. -|14 + 6|

6. |-14| + |6|

7. Compare |-5| and |5|. Why are the values the same or different?

Ratios and Proportions

To find a unit rate, write the rate as a fraction and divide the numerator by the denominator. This will express how many units from the numerator correspond with 1 unit from the denominator.
Example: 162 students per 6 teachers. 162 ÷ 6 = 27 students per teacher

For additional help:
  • http://virtualnerd.com/middle-math/ratios-proportions-percent/

A. Write each of the following rates as a unit rate.

    1. 3 Tbsp of juice per 2 tsp of sugar

    2. 135 pitches: 45 strikes

    3. <u>128 miles</u>
        4 hours

    4. <u>2250 pencils</u>
        18 boxes

B. Solve each proportion.

    5.   6 : 8 = n : 12

    6. $\frac{n}{6} = \frac{11}{3}$

    7. $\frac{2}{7} = \frac{8}{n}$

    8.   4 : n = 6 : 9

9. You jog 2.4 miles in 30 minutes. At that rate, how long will it take you to jog 7.2 miles?

10. You earn $68 in 8 hours. At that rate, how much would you earn in 5 hours?

11. An airplane flies 105 miles in ½ hour. How far can it fly in 1 ¼ hours at the same rate of speed?

12. What is the cost of six filters if eight filters cost $39.92?

Evaluating Expressions

When evaluating an expression, substitute (replace) the variable with its value. Then follow the order of operations to evaluate the expression.
Example: 5n + 2m, where n = 3 and m = 7
      5(3) + 2(7) = 15 + 14 = 29

For additional help:
- http://virtualnerd.com/middle-math/number-algebraic-sense/variables-expressions/

    1. 3(n – 1) + 2n, when n = 5

    2.   7b – 2a, when a = -3 and b = 4

    3. $3x^2 + 5x + 1$, when x = -2

    4. $\frac{2r}{t} + 7$, when r = 12 and t = 3

    5. $(3x)^2 – 7y^2$, when x = 3 and y = 2

    6.   4(3d + 6) – 2d, when d = -6

Solving Equations

Example:

$3b + 2 = 6(3 - b)$	Check:
$3b + 2 = 18 - 6b$ $\underline{\quad -2 \qquad -2 \quad}$ $3b = 16 - 6b$ $\underline{+6b \qquad + 6b \quad}$ $\dfrac{9b}{9} = \dfrac{16}{9}$ $b = \dfrac{16}{9}$ *Simplify:* $b = 1\dfrac{7}{9}$	Does $3(\dfrac{16}{9}) + 2 = 6(3 - (\dfrac{16}{9}))$? $\dfrac{16}{3} + 2 = 6(\dfrac{11}{9})$ $\dfrac{16}{3} + \dfrac{6}{3} = \dfrac{22}{3}$ $\dfrac{22}{3} = \dfrac{22}{3}$ ✓

For additional help:

- http://virtualnerd.com/middle-math/equations-functions/

Solve the equation. Include a check

1. $14 = b + 5$

2. $5r = 22$

3. $\dfrac{x}{4} = -9$

4. $3x - 5 = 13$

5. $\dfrac{1}{4}d + 2 = 3$

6. $-21 - 5x = 64$

7. $3y + 2y = 81 - 6$

8. $18y - 21 = 15y + 3$

9. $\dfrac{2a}{7} = \dfrac{2}{3}$

10. $2x - 10 + 2 = 12$

11. $3(y - 4) = -2y - 12$

12. $\dfrac{4x}{7} = \dfrac{6}{5}$

Properties

Commutative Property of Addition: $a + b = b + a$
Commutative Property of Multiplication: $a \times b = b \times a$
Associative Property of Addition: $(a + b) + c = a + (b + c)$
Associative Property of Multiplication: $a \times b \times c = a \times (b \times c)$
Identity Property of Addition: $a + 0 = a$
Identity Property of Multiplication: $a \times 1 = a$
Distributive Property: $(b + c) = ab + ac$

For additional help:

- http://virtualnerd.com/middle-math/number-algebraic-sense/mental-math/
- http://virtualnerd.com/middle-math/number-algebraic-sense/distributive-property/

Match each equation on the left with the property it illustrates on the right.

1) 4 + (9 + 6) = (4 + 9) + 6   A.   Identity Property of Addition

2) x + 12 = 12 + x   B.   Associative Property

3) (3 + y) + 0 = 3 + y   C.   Distributive Property

4) x • 1 = x   D.   Identity Property of Multiplication

5) 5(x + y) = 5x + 5y   E.   Commutative Property

Distributive Property

Example: 4(x + 5) = 4(x) + 4(5) = 4x + 20

For additional help:
- http://virtualnerd.com/middle-math/number-algebraic-sense/distributive-property/

Simplify each expression using the distributive property.

1. 3(b + 9)   2. 5(2x – 3)   3. -3(4x + 9)

4. x(2x + 4)   5. ½(4r + 12)   6. -(6p – 11)

Simplifying Expressions

For additional help:
- http://virtualnerd.com/pre-algebra/one-two-step-equations/simplify-algebraic-expressions/
- http://virtualnerd.com/pre-algebra/one-two-step-equations/distributive-property/

Simplify each expression by distributing and combining like terms.

1. 4x + 7y – 14x + 2y   2. -13 – 4y – 5z + 15 – (-4z) + 11y

3. 9(6 + 2y) – 5 + 2y   4. 2(3x – 1) + 3(x + 7)

5. -3(2x – 5y)   6. 9(2x + 4) – 2(3x – 1)

8

Geometry and Using Formulas

When using a formula, write the formula. Substitute the value of all known variables. Then solve the equation to find the value of the unknown variable.

Example: Find the area of a triangle with a base of 10 m and a height of 5 m.

1) Write the formula: $\frac{1}{2}bh$ = A
2) Substitute the values for the variables: ½(10)(5) = A
3) Solve the equation: 25 = A
4) The area of the triangle is 25 m².

For additional help:

- http://virtualnerd.com/pre-algebra/inequalities-multi-step-equations/formulas/formula-isolate-variable/isolate-variable-from-formula
- http://virtualnerd.com/pre-algebra/perimeter-area-volume/

1. A triangle has a base of 8 ft. and a height of 4 ft. What is its area?

2. A rectangle has a length of 4.2 m and a width of 3.1 m. What is its area? What is its perimeter?

3. The dimensions of a rectangular prism are 5 in. by 4 in. by 1 ½ in. What is its volume?

4. The radius of a circle is 8.5 cm. Using the formula A = πr^2, what is the area of the circle? (Use 3.14 for π.)

5. The area of a square is 36 square feet. What is the length of one side?

6. A rectangular playground with a width of 25 yards is surrounded it its entirety by a 78-yard fence. Part of the fence was damaged and needs to be replaced. The contractor determined that the entire length of fence along the north side of the park must be replaced. How many yards of fencing must be replaced?

7. Use the formula ½ (b_1 + b_2)h to find the area of the trapezoid shown below.
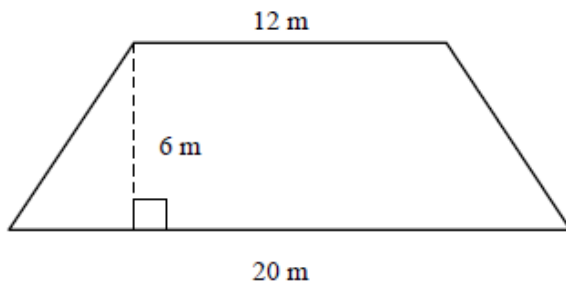
8. What is the volume of the rectangular prism?

9
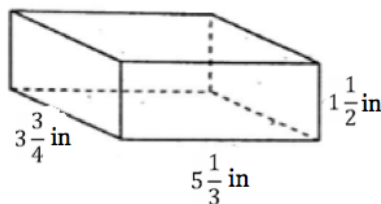
Coordinate Graphing

For additional help:

- http://virtualnerd.com/pre-algebra/algebra-tools/relations-ordered-pairs-coordinate-plane/

1) Plot the given ordered pairs.
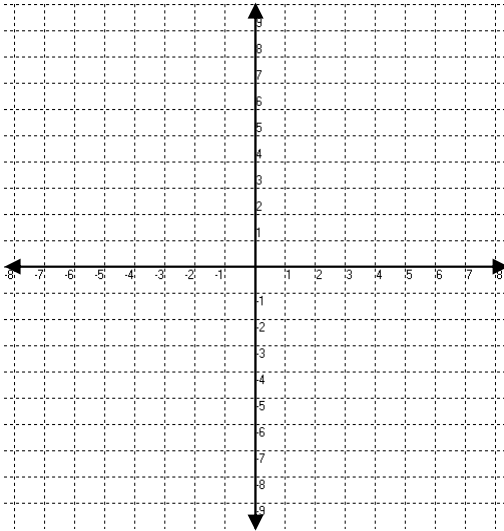(Label with the designated letter)

A (3, -5)   B (0, 2)

C (-1, -4)   D (-6, 0)

E (1, 3)   F (-3, 1)

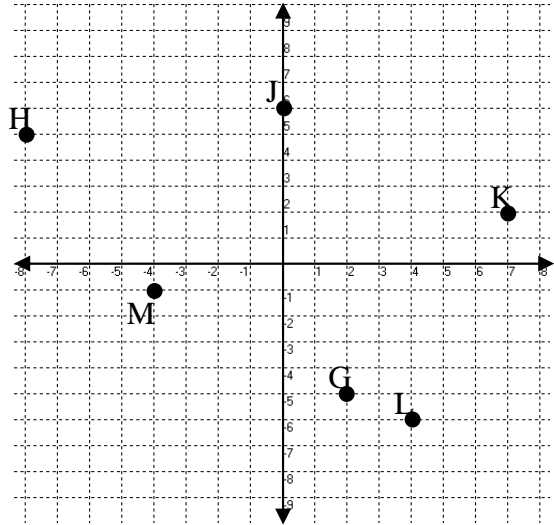2) Using the coordinate plane given, write the ordered pairs for each point.

G (,)   H (,)

J (,)   K (,)

L (,)   M (,)

3) In which quadrant are the following ordered pairs located?

a)   (-4 , 9)   b)   (-7, -18)   c)   (14, -11)

Translating Expressions and Equations

Write an algebraic expression or equation to represent each verbal expression.

Example: 18 less than the quotient of a number and 3. → $\dfrac{n}{3} - 18$

For additional help:

- http://virtualnerd.com/pre-algebra/algebra-tools/expressions-variables/translate-words-math/phrase-translate-to-numerical-expression
- http://virtualnerd.com/algebra-1/algebra-foundations/variables-expressions/words-to-math-translation/single-variable-phrase-translation-to-math

1) The sum of six times a number and 25

2) The sum of a number and 23 is 78.

3) 7 less than fifteen times a number

4) Four times the square of a number increased by five times the same number

5) The sides of a rectangle are a number and 4 less than that same number. The perimeter is 56. Find the dimensions of the rectangle.

6) If a number is decreased by 6, and the result is multiplied by 3, then the answer is 15. Find the unknown number.

Writing and Solving Equations

For additional help:
- http://virtualnerd.com/pre-algebra/algebra-tools/expressions-variables/translate-words-math/write-equation-word-problem
- http://virtualnerd.com/pre-algebra/algebra-tools/expressions-variables/translate-words-math/write-solve-equation-word-problem

Write an equation to model each word problem. Include the checks for each problem.

Example:

Joelle had $24 to spend on seven pencils. After buying them she had $10. How much did each pencil cost?

Let x = cost per pencil

$$7x + 10 = 24$$
$$-10 \quad -10$$
$$\frac{7x}{7} = \frac{14}{7}$$
$$x = 2$$

Check:
Does $7(2) + 10 = 24$?
$$14 + 10 = 24$$
$$24 = 24$$

Each pencil cost 2 dollars.

1. Jacki won 40 super bouncy balls playing horseshoes at her school's game night. Later, she gave two to each of her friends. She only has 8 remaining. How many friends does she have?

2. Coral spent half of her weekly allowance playing mini-golf. To earn more money her parents let her wash the car for $4. What is her weekly allowance if she ended with $12?

3. 271 students went on a field trip. Six buses were filled and 7 students traveled in cars. How many students were in each bus?

4. You bought some sunscreen for $7.99 and four magazines. You spent a total of $27.79. How much did each magazine cost?

5. Marla bought seven books to add to her collection. A week later half of all her books were destroyed in a fire. There are now only 22 books left. With how many did she start?

Writing, Solving, and Graphing Inequalities

For additional help:
- http://virtualnerd.com/pre-algebra/inequalities-multi-step-equations/inequalities-graphs/

Solve the inequality. Graph your solution.

1. $x + 5 > 8$

2. $6x \leq 27$

3. $x - 2.5 \geq 0$

4. $3x - 12 \leq 9$

5. $32 > 5x + 7$

6. $-6x - 3 < 15$

Measures of Center and Variability

For additional help:
- Mean, median, mode and range: http://virtualnerd.com/middle-math/probability-statistics/mean-median-mode-range/
- Box plots, quartiles, and IQR: http://virtualnerd.com/middle-math/probability-statistics/measures-variation/
- Mean absolute deviation: https://www.khanacademy.org/math/cc-sixth-grade-math/cc-6th-data-statistics/cc-6-mad/v/mean-absolute-deviation

Use the following set of data: 5, 7, 8, 3, 5, 3, 10, 2, 5, 8

1. Find the mean.

2. Find the median.

3. Find the mode.

4. Find the range.

5. Find the 1st Quartile.

6. Find the 3rd Quartile.

7. Find the IQR

8. Find the Mean Absolute Deviation (MAD)

9. Create a box plot of the data.

Answer Key

Order of Operations

1) 11   2) -7   3) 12   4) 12   5) -5   6) 67

Operations with Fractions

1) $\frac{4}{7}$ 2) $1\frac{7}{9}$ 3) $8\frac{23}{24}$ 4) $3\frac{1}{35}$ 5) $12\frac{5}{18}$ 6) $8\frac{3}{4}$

7) $\frac{2}{5}$ 8) $13\frac{4}{9}$ 9) $14\frac{2}{5}$ 10) $\frac{6}{5}$ 11) $\frac{85}{182}$ 12) 3

Operations with Decimals

1) 6.72   2) 13.207   3) 1.71   4) 17.1   5) 3.65   6) 5.22

7) 272.5   8) $1.8\overline{6}$ 9) 1.6   10) 62   11) 1923   12) $0.\overline{7}$

Converting between Decimals, Fractions and Percents

	Fractions	Decimal	Percent
1.	$\frac{1}{25}$	0.04	4%
2.	$1\frac{1}{4}$	1.25	125%
3.	$\frac{2}{3}$	$0.\overline{6}$	$66.\overline{6}\%$ or $66\frac{2}{3}\%$
4.	$1\frac{7}{10}$	1.7	170%
5.	$\frac{3}{500}$	0.006	0.6% or $\frac{3}{5}\%$
6.	$3\frac{1}{2}$	3.5	350%
7.	$\frac{9}{10}$	0.9	90%
8.	$\frac{7}{10}$	0.7	70%
9.	$\frac{17}{25}$	0.68	68%
10.	$\frac{7}{1000}$	0.007	0.7% or $\frac{7}{10}\%$

Using Percents

1) 135   2) 2.94   3) 32.1   4) 0.27   5) 52.8   6) 16

7) $161.70   8) $50   9) $3,179   10) Discount: $49.35; Sales Price: $115.15

11) $147   12) $10,000

13

Operations with Integers

1) -12   2) 28   3) -49   4) -3   5) -6   6) -19

7) 12   8) 14   9) -6   10) 15   11) -28   12) -30

13) -0.9   14) 9   15) -3   16) 1   17) 11   18) -2

19) 2   20) 23   21) -40

Absolute Value

1) 14   2) 14   3) -14   4) 8   5) -20   6) 20

7) $|-5| = |5|$ The values are the same because the distance from -5 to 0 is 5 units and the distance from 5 to 0 is also 5 units.

Ratios and Proportions

1) 1.5 Tbsp of juice per tsp of sugar   2) 3 pitches per strike   3) 32 miles per hour

4) 125 pencils per box   5) n = 9   6) n = 22   7) n = 28   8) n = 6

9) 90 minutes (or 1.5 hours)   10) $42.50   11) 262.5 miles   12) $29.95

Evaluating Expressions

1) 22   2) 34   3) 3   4) 15   5) 53   6) -36

Solving Equations

1) b = 9   2) r = 4.4   3) x = -36   4) x = 6   5) d = 4   6) -x = -17

7) y = 15   8) y = 8   9) $a = 2\frac{1}{3}$ 10) x = 10   11) *no solution*   12) x = 2.1

Properties

1) B   2) E   3) A   4) D   5) C

Distributive Property

1) 3b + 27   2) 10x – 15   3) -12x – 27   4) $2x^2 + 4x$ 5) 2r + 6   6) -6p + 11

Simplifying Expressions

1) -10x + 9y   2) 7y – z + 2   3) 20y + 49   4) 9x + 19   5) -6x + 15y   6) 12x + 38

Geometry and Using Formulas

1) 16 ft^2 2) Area: 13.02 m^2; Perimeter: 14.6 m   3) 30 in^3 4) 226.875 cm^2

5) 6 ft   6) 14 yd   7) 96 m^2 8) 30 in^3

Coordinate Graphing

1)
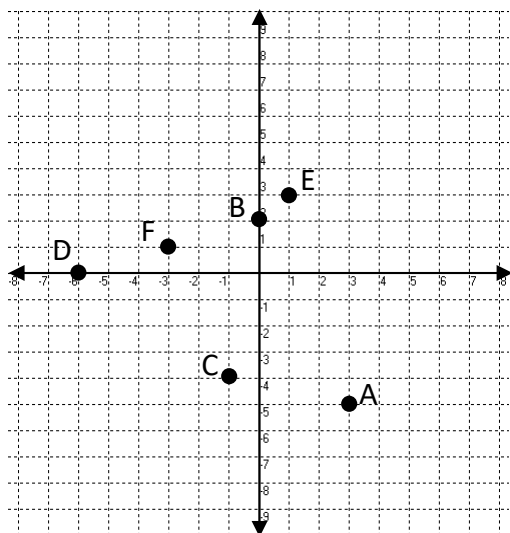
2) G (2, -5)   H (-8, 5)   J (0,6)

   K (7,2)   L (4,-6)   M (-4,-1)

3) a. Quadrant II   b. Quadrant III   c. Quadrant IV

Translating Expressions and Equations

1) 6n + 25

2) n + 23 = 78

3) 15n − 7

4) $4n^2 + 5n$

5) 2n + 2(n − 4) = 56

6) 3(n − 6) = 15

Writing and Solving Equations

1) 16 friends

40 = 2f + 8
40 − 8 = 2f + 8 − 8
32 = 2f
16 = f

Check:
40 = 2 • 16 + 8
40 = 32 + 8
40 = 40 ✓

2) $16

½ a + 4 = 12
½ a + 4 − 4 = 12 − 4
½ a = 8
2 • ½ a = 8 • 2
a = 16

Check:
½ • 16 + 4 = 12
8 + 4 = 12
12 = 22 ✓

3) 44 students per bus

6s + 7 = 271
6s + 7 − 7 = 271 − 7
6s = 264
6s/6 = 264/6
s = 44

Check:
6 • 44 + 7 = 271
264 + 7 = 271
271 = 271 ✓

4) $4.95

7.99 + 4m = 27.79
7.99 + 4m − 7.99 = 27.79 − 7.99
4m = 19.8
4m/4 = 19.8/4
m = 4.95

Check:
7.99 + 4 • 4.95 = 27.79
7.99 + 19.8 = 27.79
27.79 = 27.79 ✓

5) 37 books

½ (b + 7) = 22
2 • ½ (b + 7) = 22 • 2
b + 7 = 44
b + 7 − 7 = 44 − 7
b = 37

Check:
½ (37 + 7) = 22
½ (44) = 22
22 = 22 ✓

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Writing, Solving, and Graphing Inequalities

1) x > 3

2) x ≤ 4.5

3) x ≥ 2.5

4) x ≤ 4

5) x < 5

6) x > -3
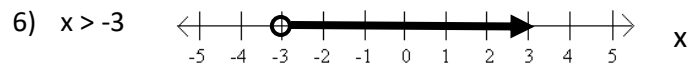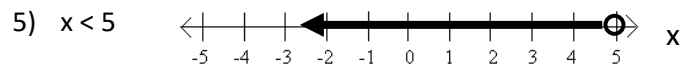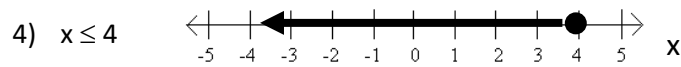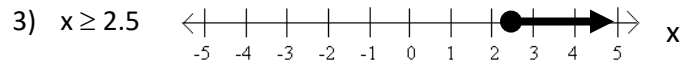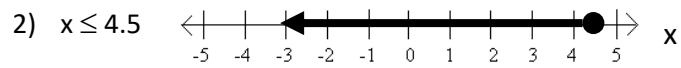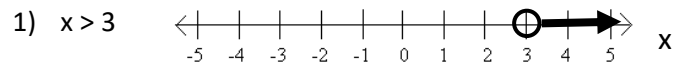
Measures of Center and Variability

1) 5.6   2) 5   3) 5   4) 8   5) 3   6) 8

7) 5   8) 2.12   9)

0 1 2 3 4 5 6 7 8 9 10