


# **Incoming 8<sup>th</sup> Grade Intro to Algebra & Geometry – Summer Math Packet**

## **Kids' Information Page**

*We're so proud of you for taking the time to work on math over the summer!*

Here are some helpful hints for success:

- ☺ Find a quiet work space where you can get organized and stay focused.
- ☺ Pay close attention to the examples and vocabulary.
- ☺ It's ok to struggle, it allows you to self-monitor what you do and do not know.
- ☺ If you don't know how to do something, make note of it on the answer sheet, so you know to ask questions when you come back to school.
- ☺ Remember to persevere (Mathematical Practice #1)! Don't just give up after one attempt.
- ☺ Complete all of the problems in the packet. Use loose leaf paper if you need more space to show your work.
- ☺ Calculators may **ONLY** be used when you see this symbol: 
- ☺ Remember to do a little work each week. **DO NOT** wait until the week before school starts to complete your packet!
- ☺ The packet should be returned to your math teacher during the first week of school.

*Have fun & we'll see you in August!*

# Incoming 8<sup>th</sup> Grade Intro to Algebra & Geometry – Summer Math Packet

**Unit: Knowledge of Algebra, Patterns, and Functions**

**Objective:** Write expressions and equations

**Review: Word Chart**

Addition	Subtraction	Multiplication	Division
more than	less than	times	quotient
increased by	decreased by	multiplied by	divided by
sum of	fewer than	twice	divided into
added to	change	product	separate into equal parts

**Examples:**

- 1) Two times a number  $2x$
- 2) Three less than a number is equal to 7.  $x - 3 = 7$
- 3) The sum of a number and 1 is 5.  $x + 1 = 5$
- 4) Cody has \$50 to spend. How many shirts can he buy at \$16.50 each? Write an equation to solve.  $16.50x = 50$

Write an expression or equation for each of the following:

1.) Five times a number is 25.	2.) The sum of a number and 6 is 15.
3.) 24 divided by some number is 7.	4.) Five dollars less than two times Chris' pay is \$124.
5.) Write a word phrase that can be represented by $x - 11$ .	6.) Suppose a DVD costs \$19 and a CD costs \$14. Write an equation to find how many CDs you can buy along with one DVD if you have \$65 to spend.

**On a scale of 1 – 5 (1: Weak, 5: Strong) rate yourself on this section of math: 1 2 3 4 5**

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## Unit: Knowledge of Algebra, Patterns, and Functions

**Objective:** Determine the unknown in a linear equation with 1 or 2 operations

Remember, equations must always remain balanced.

- If you add or subtract the same number from each side of an equation, the two sides remain equal.
- If you multiply or divide the same number from each side of an equation, the two sides remain equal.

### Example 1: Solve $x + 5 = 11$

$$\begin{array}{l} x + 5 = 11 \quad \text{Write the equation} \\ - 5 = - 5 \quad \text{Subtract 5 from both sides} \\ \hline x = 6 \quad \text{Simplify} \end{array}$$



$$\begin{array}{l} x + 5 = 11 \quad \text{Write the equation} \\ 6 + 5 = 11 \quad \text{Replace x with 6} \\ 11 = 11 \checkmark \quad \text{The sentence is true} \end{array}$$

### Example 2: Solve $- 21 = - 3y$

$$\begin{array}{l} - 21 = - 3y \quad \text{Write the equation} \\ - 3 = - 3 \quad \text{Divide each side by } - 3 \\ 7 = y \quad \text{Simplify} \end{array}$$



$$\begin{array}{l} - 21 = - 3y \quad \text{Write the equation} \\ - 21 = - 3(7) \quad \text{Replace the y with 7} \\ - 21 = - 21? \quad \text{Multiply } - \text{ is the sentence true?} \end{array}$$

### Example 3: Solve $3x + 2 = 23$

$$\begin{array}{l} 3x + 2 = 23 \quad \text{Write the equation} \\ - 2 = - 2 \quad \text{Subtract 2 from or add } - 2 \text{ to each side} \\ \hline 3x = 21 \quad \text{Simplify} \\ \frac{3x}{3} = \frac{21}{3} \quad \text{Divide each side by 3} \\ x = 7 \quad \text{Simplify} \end{array}$$



$$\begin{array}{l} 3x + 2 = 23 \quad \text{Write the equation} \\ 3(7) + 2 = 23? \quad \text{Replace x with 7} \\ 21 + 2 = 23? \quad \text{Multiply} \\ 23 = 23? \quad \text{Add } - \text{ is the sentence true?} \end{array}$$

1.) Solve  $p + 7 = 15$

2.) Solve  $j - 5 = -8$

3.) Solve  $12d = -72$

4.) Solve  $\frac{n}{11} = 7$

5.) Solve  $5x - 5 = 5$

6.) Solve  $4t + 3.5 = 12.5$

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7.) Solve $\frac{x}{2} - 9 = -2$	8.) Solve $\frac{d}{3} + 10 = 7$
9.) Solve $-9p - 17 = 10$	10.) Solve $\frac{w}{4} - 4 = 3$
11.) Write an equation to represent the following scenario: You withdrew \$100 from the ATM machine. The new balance is \$372. What was the original balance $b$ of your account?	12.) Write an equation to represent the following scenario: Alexa scored 87 on her history test. The test had a multiple-choice section and a short-answer section. Alexa earned 74 points on the multiple-choice section. How many points $p$ did she earn on the short-answer section?
13.) Write an equation to represent the following scenario: Mark wants to buy a skateboard that costs \$55. He plans to save \$5 per week. How many weeks $w$ will it take him to save \$55?	14.) Write an equation to represent the following scenario: This year, 14,265 people applied to a particular college. The number of applicants increased by 868 from last year. How many people $p$ applied last year?
15.) Write an equation to represent the following scenario: It costs \$12 to attend a golf clinic with a local pro. Buckets of balls for practice during the clinic cost \$3 each. How many buckets $b$ can you buy at the clinic if you have \$30 to spend?	16.) Write an equation to represent the following scenario: An online retailer charges \$6.99 plus \$0.55 per pound to ship electronics purchases. How many pounds $p$ is a DVD player for which the shipping charge is \$11.94?
<b>On a scale of 1 – 5 (1: Weak, 5: Strong) rate yourself on this section of math: 1 2 3 4 5</b>	

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## Unit: Knowledge of Algebra, Patterns, and Functions

**Objective:** Graph ordered pairs in a coordinate plane.

The **coordinate plane** is used to locate points. The horizontal number line is the **x-axis**. The vertical number line is the **y-axis**. Their intersection is the **origin**.

Points are located using **ordered pairs**. The first number in an ordered pair is the **x-coordinate**; the second number is the **y-coordinate**.

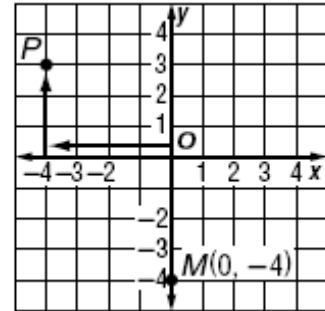
The coordinate plane is separated into four sections called **quadrants**.

**Example 1:** Name the ordered pair for point P. Then identify the quadrant in which P lies. Quadrant 2      Quadrant 1

- Start at the origin.
- Move 4 units left along the x-axis.
- Move 3 units up on the y-axis.

The ordered pair for point P is  $(-4, 3)$ .

P is in the upper left quadrant or quadrant II.



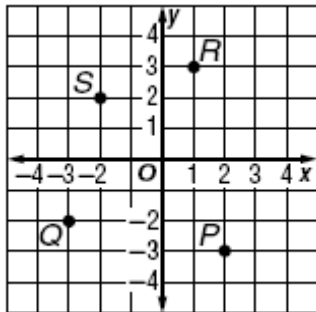
**Example 2:** Graph and label the point M  $(0, -4)$ .

- Start at the origin.
- Move 0 units along the x-axis.
- Move 4 units down on the y-axis.
- Draw a dot and label it M  $(0, -4)$ .

Quadrant 3      Quadrant 4

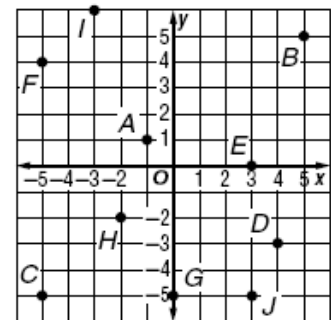
1.) Name the ordered pair for each point graphed at the right. Then identify the quadrant in which each point lies.

Coordinates	Quadrant
P (__, __)	___
Q (__, __)	___
R (__, __)	___
S (__, __)	___



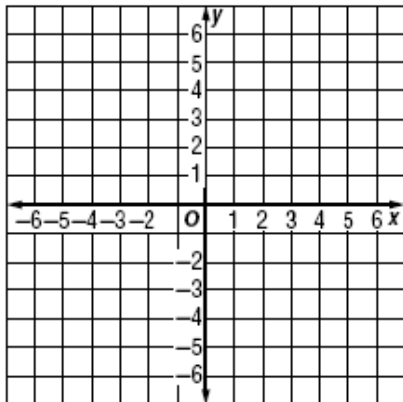
2.) Find each of the points below on the coordinate plane. Then identify the quadrant in which each point lies.

Coordinates	Quadrant
A (__, __)	___
J (__, __)	___
B (__, __)	___
H (__, __)	___



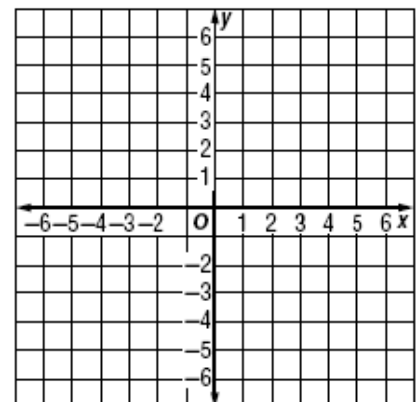
3.) Graph and label each point on the coordinate plane.

- N  $(3, -1)$
- P  $(-2, 4)$
- Q  $(-3, -4)$
- R  $(0, 0)$
- S  $(-5, 0)$



4.) Graph and label each point on the coordinate plane.

- D  $(0, 4)$
- E  $(5, 5)$
- G  $(-3, 0)$
- H  $(-6, -2)$
- J  $(0, -2)$



On a scale of 1 – 5 (1: Weak, 5: Strong) rate yourself on this section of math:    1    2    3    4    5



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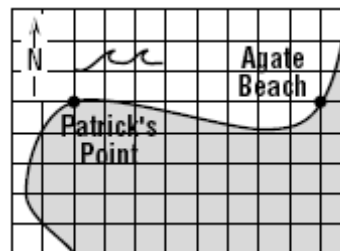
## Unit: Knowledge of Measurement

**Objective:** Determine the distance between 2 points using a drawing and a scale.

A **scale drawing** represents something that is too large or too small to be drawn at actual size. Similarly, a **scale model** can be used to represent something that is too large or too small for an actual-size model. The **scale** gives the relationship between the drawing/model measure and the actual measure.

**Example:** On this map, each grid unit represents 50 yards. Find the distance from Patrick's Point to Agate Beach.

<b>Scale</b>	<b>Patrick's Point to Agate Beach</b>	
map → 1 unit	8 units ← map	
actual → 50 yards	x yards ← actual	=
$1 \cdot x = 50 \cdot 8$ <b>cross multiply</b>		



$x = 400$  **simplify**

**It is 400 yards from Patrick's Point to Agate Beach.**

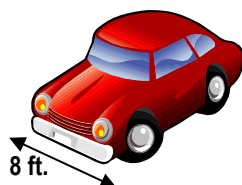
1.) On a map, the distance from Los Angeles to San Diego is 6.35 cm. The scale is 1 cm = 20 miles. What is the actual distance?



2.) Lexie is making a model of the Empire State Building. The scale of the model is 1 inch = 9 feet. The needle at the top is 31.5 feet tall. How big should the needle be on the model?

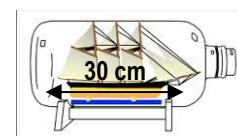


3.) A scale drawing of an automobile has a scale of 1 inch = 1/2 foot. The actual width of the car is 8 feet. What is the width on the scale drawing?

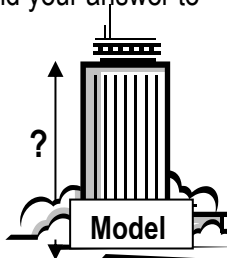


**Actual car**

4.) A model ship is built to a scale of 1 cm : 5 meters. The length of the model is 30 centimeters. What is the length of the actual ship?



5.) Jose wants to build a model of a 180-meter tall building. He will be using a scale of 1.5 centimeters = 3.5 meters. How tall will the model be? Round your answer to the nearest tenth.



6.) A pond is being dug according to plans that have a scale of 1 inch = 6.5 feet. The maximum distance across the pond is 9.75 inches on the plans. What will be the actual maximum distance across the pond?



**On a scale of 1 – 5 (1: Weak, 5: Strong) rate yourself on this section of math: 1 2 3 4 5**

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## Unit: Knowledge of Number Relationships & Computation

**Objective:** Determine equivalent forms of rational numbers expressed as **fractions, decimals, percents, and ratios.** - B

**Examples:**

A **RATIO** is a comparison of two numbers by division. When a ratio compares a number to 100, it can be written as a **PERCENT**. To write a ratio or fraction as a percent, find an equivalent fraction with a denominator of 100. You can also use the meaning of percent to change percents to fractions.

Write  $\frac{19}{20}$  as a percent.

$$\frac{19}{20} \cdot \frac{5}{5} = \frac{95}{100} = 95\% \quad \text{Since } 100 \div 20 = 5, \text{ multiply the numerator and denominator by 5.}$$

Write 92% as a fraction in simplest form.

$$\frac{92}{100} = \frac{\div 4}{\div 4} = \frac{23}{25}$$

Write 92% as a decimal.      Move decimal two places to the left. Add zeros if needed.      92.0% = 0.92

Write 0.4 as a percent.      Move decimal two places to the right. Add zeros if needed.      0.4 = 40%

1.) Write  $\frac{7}{25}$  as a percent and decimal.

2.) Write 19% as a decimal and fraction in simplest form.

3.) Write  $\frac{9}{50}$  as a percent and decimal.

4.) Write 75% as a decimal and fraction in simplest form.

5.) Ms. Crest surveyed her class and found that 15 out of 30 students brushed their teeth more than twice a day. Write this ratio as a fraction in simplest form, then write it as a % and a decimal.

6.) A local retail store was having a sale and offered all their merchandise as a 25% discount. Write this percent as a fraction in simplest form, then write it as a decimal.

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On a scale of 1 – 5 (1: Weak, 5: Strong) rate yourself on this section of math:    1    2    3    4    5

**Unit: Knowledge of Number Relationships & Computation**

**Objective: Add, subtract, multiply and divide integers. - A**

**Examples:**

**ADDITION INTEGER RULES:**

For integers with the same sign:

- The sum of two positive integers is **POSITIVE**.
- The sum of two negative integers is **NEGATIVE**.

For integers with different signs, subtract their absolute value. The sum is:

- **Positive** IF the positive integer has the greater absolute value.
- **Negative** IF the negative integers has the greater absolute value.

**Examples:**

$- 6 + (- 3) =$  add keep the sign = - 9

$- 34 + (- 21) =$  add keep the sign = - 55

$8 + (- 7) =$  subtract keep the sign of the higher = 1

$- 5 + 4 =$  subtract keep the sign of the higher = - 1

**SUBTRACTION INTEGER RULES:**

- Keep the first number the same
- Switch the subtraction sign to **ADDITION**
- Change the second number to it's opposite. Opposite: - 6 to 6
- Follow Addition rules above.

**Examples:**

$6 - 9 = 6 + (- 9) = - 3$

$- 10 - (- 12) = - 10 + 12 = 2$

$- 3 - 7 = - 3 + (- 7) = - 10$

$1 - (- 2) = 1 + 2 = 3$

1.) Add:  $2 + (- 7)$

2.) Subtract:  $- 13 - 8$

3.) Evaluate  $a - b$  if  $a = - 2$  and  $b = - 7$

4.) Evaluate  $x + y + z$  if  $x = 3$ ,  $y = - 5$ , and  $z = - 2$

5.) In Mongolia the temperature can dip down to  $- 45^{\circ} \text{C}$  in January. The temperature in July may reach  $40^{\circ} \text{C}$ . What is the temperature range in Mongolia?

6.) Write an addition expression to describe skateboarding situation. Then determine the sum.

Hank starts at the bottom of a half pipe 6 feet below street level. He rises 14 feet at the top of his kickturn.



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On a scale of 1 – 5 (1: Weak, 5: Strong) rate yourself on this section of math: 1 2 3 4 5

**Unit: Knowledge of Number Relationships & Computation**

**Objective:** Add, subtract, multiply and divide integers. - B

**Examples:**

**MULTIPLYING & DIVIDING INTEGER RULES:**

- Two integers with DIFFERENT signs the answer is NEGATIVE.
- Two integers with SAME signs the answer is POSITIVE.

**Examples:**

$5(-2) = 5$  times  $-2$ , the signs are different so the answer will be negative =  $-10$

$(-6) \cdot (-9) =$  the signs are the same so the answer will be positive =  $54$

$30 \div (-5) =$  the signs are different so the answer will be negative =  $-6$

$-100 \div (-5) =$  the signs are the same so the answer will be positive =  $20$

1.) Multiply:  $-14(-7)$

2.) Divide:  $350 \div (-25)$

3.) Evaluate if  $a = -3$  and  $c = 5$

$$-3ac$$

4.) Evaluate if  $d = -24$ ,  $e = -4$ , and  $f = 8$

$$\frac{de}{f}$$

5.) A computer stock decreased 2 points each hour for 6 hours. Determine the total change in the stock value over the 6 hours.

6.) A submarine descends at a rate of 60 feet each minute. How long will it take it to descend to a depth of 660 feet below the surface?

# Incoming 8<sup>th</sup> Grade Intro to Algebra & Geometry – Summer Math Bucket



On a scale of 1 – 5 (1: Weak, 5: Strong) rate yourself on this section of math: 1 2 3 4 5

Unit: Order of Operations and Evaluating Expressions

Objective: Use the order of operations to simplify a numerical expression.

Order of Operations:

P – Perform operations inside the (Parentheses)

E – Evaluate any Exponent<sup>s</sup>

M/D – Multiplication/ Division (whichever comes first in the expression, moving left to right)

A/S – Addition/ Subtraction (whichever comes first in the expression, moving left to right)

1.) Simplify:  $7 - 10 \cdot 5$

2.) Simplify:  $17 - 100 / 10 \cdot 5 + 14$

3.) Simplify:  $9 \cdot (5 + 5) + 3$

4.) Simplify:  $16 + 4^3 \cdot 2 / 16$

5.) Evaluate  $11p - 6$  for  $p = 5$

6.) Evaluate  $3x^2 - 4$  when  $x = -4$

7.) Evaluate  $62 + 3a$  for  $a = 12$

8.) Evaluate  $-4y^2 - 8y + 1$  when  $y = -3$

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On a scale of 1 – 5 (1: Weak, 5: Strong) rate yourself on this section of math: 1 2 3 4 5

## Unit: Knowledge of Number Relationships & Computation

**Objective:** Add, subtract, and multiply positive fractions and mixed numbers. - A

**Examples:**

- To add unlike fractions (fractions with different denominators), rename the fractions so there is a common denominator.

$$\text{Add: } \frac{1}{6} + \frac{2}{5} = \frac{1}{6} = \frac{1 \cdot 5}{6 \cdot 5} = \frac{5}{30} \qquad \frac{2}{5} = \frac{2 \cdot 6}{5 \cdot 6} = \frac{12}{30} \qquad \frac{5}{30} + \frac{12}{30} = \frac{17}{30}$$

$$\text{Add: } 12\frac{1}{2} + 8\frac{2}{3} = 12\frac{1}{2} = 12\frac{1 \cdot 3}{2 \cdot 3} = 12\frac{3}{6} \qquad 8\frac{2}{3} = 8\frac{2 \cdot 2}{3 \cdot 2} = 8\frac{4}{6}$$

$$12\frac{3}{6} + 8\frac{4}{6} = 20\frac{7}{6} \qquad \frac{7}{6} \text{ is improper so we must change it to proper. } 7 \text{ divided by } 6 = 1\frac{1}{6}$$

$$20 + 1\frac{1}{6} = 21\frac{1}{6}$$

1.) Add:  $\frac{1}{3} + \frac{1}{9}$

2.) Add:  $7\frac{4}{9} + 10\frac{2}{9}$

3.) Add:  $1\frac{5}{9} + 4\frac{1}{6}$

4.) Add:  $2\frac{1}{2} + 2\frac{2}{3}$

5.) A quiche recipe calls for  $2\frac{3}{4}$  cups of grated cheese. A recipe for quesadillas requires  $1\frac{1}{3}$  cups of grated cheese. What is the total amount of grated cheese needed for both recipes?

6.) You want to make a scarf and matching hat. The pattern calls for  $1\frac{7}{8}$  yards of fabric for the scarf and  $2\frac{1}{2}$  yards of fabric for the hat. How much fabric do you need in all?

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On a scale of 1 – 5 (1: Weak, 5: Strong) rate yourself on this section of math: 1 2 3 4 5

## Unit: Knowledge of Number Relationships & Computation

**Objective:** Add, subtract, and multiply positive fractions and mixed numbers. - B

**Examples:**

- To subtract unlike fractions (fractions with different denominators), rename the fractions so there is a common denominator.

$$\text{Subtract: } \frac{7}{8} - \frac{1}{2} = \frac{7}{8} = \frac{7 \cdot 1}{8 \cdot 1} = \frac{7}{8} \quad \frac{1}{2} = \frac{1 \cdot 4}{2 \cdot 4} = \frac{4}{8} \quad \frac{7}{8} - \frac{4}{8} = \frac{3}{8}$$

$$\text{Subtract: } 5\frac{3}{4} - 2\frac{1}{3} = 5\frac{3}{4} = 5\frac{3 \cdot 3}{4 \cdot 3} = 5\frac{9}{12} \quad 2\frac{1}{3} = 2\frac{1 \cdot 4}{3 \cdot 4} = 2\frac{4}{12}$$

$$5\frac{9}{12} - 2\frac{4}{12} = 3\frac{5}{12}$$

\*\*Note: If you have to borrow from the whole number change to improper fractions, find a common denominator, subtract, and then change back to proper fractions.

1.) Subtract:  $\frac{9}{10} - \frac{1}{10}$

2.) Subtract:  $\frac{2}{3} - \frac{1}{6}$

3.) Subtract:  $9\frac{7}{10} - 4\frac{3}{5}$

4.) Subtract:  $5\frac{3}{8} - 4\frac{11}{12}$

\*Hint: Change to improper fractions first!

5.) Melanie had  $4\frac{2}{3}$  pounds of chopped walnuts. She used  $1\frac{1}{4}$  pounds in a recipe. How many pounds of chopped walnuts did she have left?

6.) Lois has  $3\frac{1}{3}$  pounds of butter. She uses  $\frac{3}{4}$  pound in a recipe. How much does she have left? \*Hint: Change to improper fractions first.

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On a scale of 1 – 5 (1: Weak, 5: Strong) rate yourself on this section of math: 1 2 3 4 5

## Unit: Knowledge of Number Relationships & Computation

**Objective:** Add, subtract, and **multiply** positive fractions and mixed numbers. - C

**Examples:**

- To multiply fractions – Multiply the numerators & denominators.
- Be sure to change mixed numbers to improper fractions before multiplying.

$$\frac{1}{3} \cdot \frac{5}{8} = \frac{5}{24}$$

$$1\frac{1}{3} \cdot 3\frac{2}{5} = \frac{4}{3} \cdot \frac{17}{5} = \frac{68}{15} = 4\frac{8}{15}$$

**\*\*Remember:** Changing mixed numbers to improper fractions.  $2\frac{3}{4} = 4 \cdot 2 + 3 = \frac{11}{4}$

$$1\frac{1}{3} \cdot 21 = \frac{4}{3} \cdot \frac{21}{1} = \frac{4 \cdot 21}{3 \cdot 1} = \frac{84}{3} = 28$$

1.)  $\frac{2}{3} \cdot \frac{4}{5} =$

2.)  $\frac{7}{3} \cdot 4\frac{1}{2} =$

3.)  $2\frac{1}{2} \cdot 2\frac{1}{3} =$

4.)  $3 \cdot 5\frac{2}{9} =$

5.) Anna wants to make 4 sets of curtains. Each set requires  $5\frac{1}{8}$  yards of fabric. How much fabric does she need?

6.) One sixth of the students at a local college are seniors. The number of freshmen students is  $2\frac{1}{2}$  times that amount. What fraction of the students are freshmen?

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On a scale of 1 – 5 (1: Weak, 5: Strong) rate yourself on this section of math: 1 2 3 4 5

**Unit: Simplifying Expressions**

**Objective: Simplify variable expressions by combining like terms and using the Distributive Property.**

**Examples:**

- To combine – add terms that have the same exact variable part.
- To distribute – multiply the number outside the parentheses to all terms inside the parentheses.
- **REMEMBER!** Keep track of the sign of the number as you regroup

Example: Simplify the expression.

a) $4x - 3 + 1 - 2x$ $4x - 2x - 3 + 1$ $2x - 2$	b) $14y + 2 - 10y + 13$ $14y - 10y + 2 + 13$ $4y + 15$	c) $a + 2b - 5b - 6a$ $1a - 6a + 2b - 5b$ $-5a - 3b$
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Example: Simplify the expression first using the Distributive Property.

a) $2(m + 6)$ $2 \cdot m + 2 \cdot 6$ $2m + 12$	b) $-3(g - 7)$ $-3 \cdot g - -3 \cdot 7$ $-3g + 21$	c) $4(2k - 1) - 3k$ $4 \cdot 2k - 4 \cdot 1 - 3k$ $8k - 4 - 3k$ $5k - 4$
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1.) $7d - 8 + 4d + 4$	2.) $2v - 5 + 5v$
3.) $4(b + 1)$	4.) $-2(2q - 1)$
5.) $5(x + 10) + x$	6.) $-6 - 7(c + 10)$

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On a scale of 1 – 5 (1: Weak, 5: Strong) rate yourself on this section of math: 1 2 3 4 5

## Answer Key

**Check your answers after completing each section. Indicate whichever statement best applies to you.**

Page 2

Answer	I got it on the 1 <sup>st</sup> try!	I got it with corrections.	I have no idea.
1. $5x = 25$			
2. $x + 6 = 15$			
3. $\frac{24}{x} = 7$			
4. $2x - 5 = 7$			
5. Answers will vary.			
6. $19 + 14x = 65$			

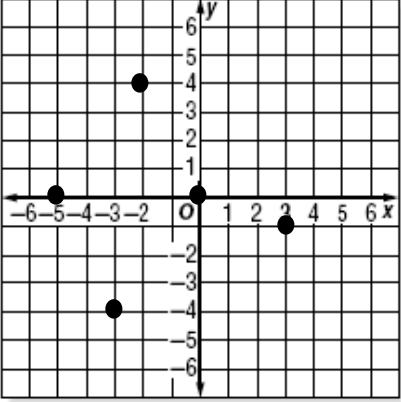
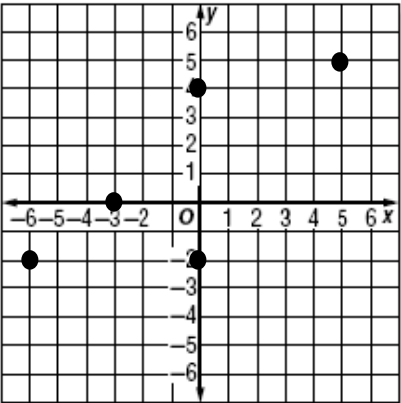
Pages 3 to 4

Answer	I got it on the 1 <sup>st</sup> try!	I got it with corrections.	I have no idea.
1. $p = 8$			
2. $j = -3$			
3. $d = -6$			
4. $n = 77$			
5. $x = 2$			
6. $t = 2.25$			
7. $x = 14$			
8. $d = -9$			
9. $p = -3$			
10. $w = 28$			
11. $b - 100 = 372$			
12. $74 + p = 87$			
13. $5w = 55$			

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14. $p + 868 = 14,265$			
15. $12 + 3b = 30$			
16. $6.99 + 0.55p = 11.94$			

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Answer	I got it on the 1 <sup>st</sup> try!	I got it with corrections.	I have no idea.
1. P (2,-3) IV; Q (-3, -2) III; R (1, 3) I; S (-2, 2) II			
2. A (-1, 1) II; J (3, -5) IV; B (5, 5) I; H (2, -2) III			
3. 			
4. 			

Page 6

Answer	I got it on the 1 <sup>st</sup> try!	I got it with corrections.	I have no idea.
1. 127 mi			
2. 3.5 in			
3. 16 in			
4. 150 cm			



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5. $77\frac{1}{7}$ cm			
6. 63.375 ft			

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Answer	I got it on the 1 <sup>st</sup> try!	I got it with corrections.	I have no idea.
1. 0.28, 28%			
2. 0.19, $\frac{19}{100}$			
3. 0.18, 18%			
4. 0.75, $\frac{3}{4}$			
5. $\frac{1}{2}$ , 0.5, 50%			
6. $\frac{1}{4}$ , 0.25			

Page 8

Answer	I got it on the 1 <sup>st</sup> try!	I got it with corrections.	I have no idea.
1. -5			
2. -21			
3. 5			
4. -4			
5. 85°			
6. 8 ft			

Page 9

Answer	I got it on the 1 <sup>st</sup> try!	I got it with corrections.	I have no idea.
1. 98			
2. -14			
3. 45			
4. 12			
5. -12			
6. 11 min.			

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Answer	I got it on the 1 <sup>st</sup> try!	I got it with corrections.	I have no idea.
1. -43			
2. -19			
3. 93			
4. 24			
5. 49			

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6. 44			
7. 98			
8. -11			

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Answer	I got it on the 1 <sup>st</sup> try!	I got it with corrections.	I have no idea.
1. $\frac{4}{9}$			
2. $17\frac{2}{3}$			
3. $5\frac{13}{18}$			
4. $5\frac{1}{6}$			
5. $4\frac{1}{12}$ cups			
6. $4\frac{3}{8}$ yds			

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Answer	I got it on the 1 <sup>st</sup> try!	I got it with corrections.	I have no idea.
1. $\frac{4}{5}$			
2. $\frac{1}{2}$			
3. $5\frac{1}{10}$			
4. $\frac{11}{24}$			
5. $2\frac{5}{12}$ lbs			
6. $2\frac{7}{12}$ lbs			

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Answer	I got it on the 1 <sup>st</sup> try!	I got it with corrections.	I have no idea.
1. $\frac{8}{15}$			
2. $10\frac{1}{2}$			
3. $5\frac{5}{6}$			
4. $15\frac{2}{3}$			
5. $20\frac{1}{2}$ yds			
6. $\frac{5}{12}$			

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Answer	I got it on the 1 <sup>st</sup> try!	I got it with corrections.	I have no idea.
1. $11d - 4$			
2. $7v - 5$			
3. $4b + 4$			

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4. $-4q + 2$			
5. $6x + 50$			
6. $-7c - 76$			