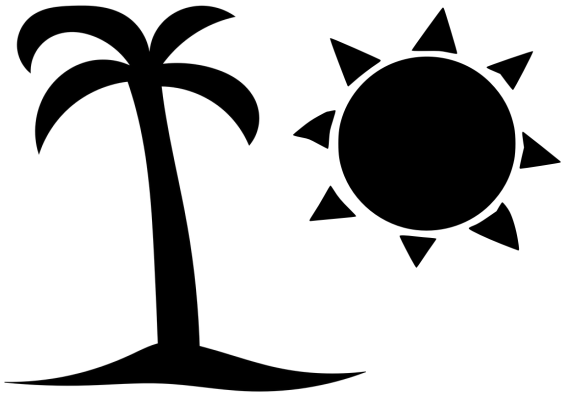

Summer Math Practice

Preparing for:

❀ ❀ Pre-Algebra ❀ ❀

These problems are meant to prepare you to be successful in Pre-Algebra next year. The packet is designed so that you can practice a variety of problems each week. It is recommended that you complete only one page of the packet each week so that you are able to keep your brain fresh from now until August! Remember to show all work in the space provided below the problems.

You may email
Mrs. Tenery (ktenery@fwc.org)
or
Mrs. Wallis (kwallis@fwc.org)
for any other summer math needs.

❀ We look forward to working with you in the fall! ❀

Student Name _____

Name _____

Students are expected to know the following:

Multiplication tables for 1-12

x	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

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Perfect Squares and Square Roots (1-12)

$1^2 = 1$	$\sqrt{1} = 1$	$7^2 = 49$	$\sqrt{49} = 7$
$2^2 = 4$	$\sqrt{4} = 2$	$8^2 = 64$	$\sqrt{64} = 8$
$3^2 = 9$	$\sqrt{9} = 3$	$9^2 = 81$	$\sqrt{81} = 9$
$4^2 = 16$	$\sqrt{16} = 4$	$10^2 = 100$	$\sqrt{100} = 10$
$5^2 = 25$	$\sqrt{25} = 5$	$11^2 = 121$	$\sqrt{121} = 11$
$6^2 = 36$	$\sqrt{36} = 6$	$12^2 = 144$	$\sqrt{144} = 12$

Measurement Conversions

1 week = 7 days	1 mile = 5280 feet
1 day = 24 hours	1 foot = 12 inches
1 hour = 60 minutes	1 mile = 1760 yards
1 minute = 60 seconds	1 yard = 3 feet
1 gallon = 4 quarts	1 kilometer = 1000 meters
1 quart = 2 pints	1 meter = 100 centimeters
1 pint = 2 cups	1 centimeter = 10 millimeters
1 kilogram = 1000 grams	1 pound = 16 ounces
1 liter = 1000 milliliters	1 dollar = 100 cents

Vocabulary

Evaluate - to calculate the value of an expression

Simplify - to reduce an expression to its simplest form (fewest number of terms possible)

Solve - to find a value for the variable that makes an equation true

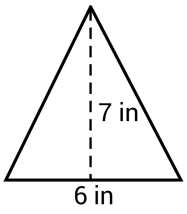
Expression - numbers, symbols, and operations (+, -, ÷, x) grouped together (*can be evaluated/simplified*)

Equation - uses an *equal sign* to show two expressions are equal to the same value (*can be solved*)

Name _____

Preparing for Pre-Algebra!

Week 1

Evaluate the following: $1 - 8$	Round to the nearest TENTHS place: $8,482.753$	Evaluate the following: (leave your answer as an improper fraction) $\frac{2}{3} + \frac{5}{4}$
Solve: $x - 4 = -8$	Find the area of the triangle:  	Write the following as a PERCENT: $.37$
Jeffrey is playing a carnival game at the state fair. For this game, you pull a string and get whatever prize is on the end. Two strings are attached to grand prizes, eighteen are attached to candy, and thirty are attached to empty boxes with no prizes in them. *What is the probability that Jeffrey will win one of the grand prizes?*	Find the greatest common factor between the two numbers: $28\ and\ 42$	Solve the proportion: $\frac{8}{24} = \frac{x}{9}$

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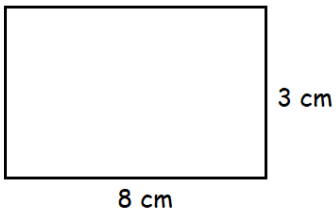
Preparing for Pre-Algebra!

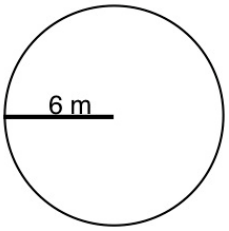
Week 2

Evaluate the following: (Leave your answer as an improper fraction, but remember to *reduce if necessary!*) $\frac{2}{3} \cdot \frac{5}{4}$	Find the area of the rectangle:  	Find the least common multiple between the two numbers: $8 \; and \; 6$
Round to the nearest HUNDREDTHS place: $2,535,419.1724$	Write the following as a DECIMAL: 28.4%	Evaluate the following: $-7--2$
Round to the nearest TENTH. $What\ is\ 85\%\ of\ 72?$	Solve: $3x - 10 = 14$	Evaluate the following: $2 + \frac{10}{5}$

Name _____

Preparing for Pre-Algebra!

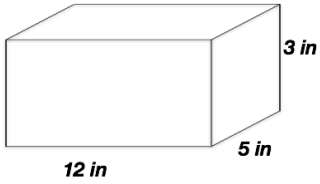
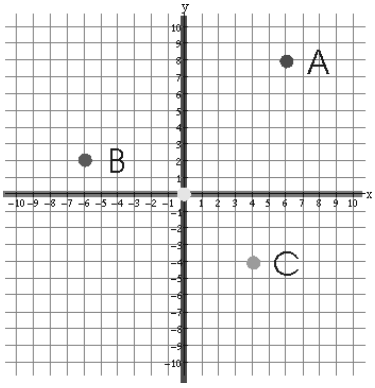
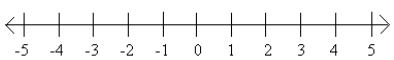
Week 3

Round to the nearest WHOLE number: $5,784.875$	Solve: $30 = 14 + r$	Evaluate the following: (Leave your answer as an improper fraction, but remember to *reduce if necessary!*) $\frac{2}{5} - \frac{4}{7}$
Write the following as a DECIMAL: $\frac{5}{8}$	Solve the proportion: Round to the nearest TENTH. $\frac{a}{5} = \frac{3}{7}$	Find the area of the circle: 
Solve: $2x + 8 = 20$	Evaluate the following: $-45 \div 5$	Simplify the expression: (combine like terms) $2x + 4x + 5 + 7$

Name _____

Preparing for Pre-Algebra!

Week 4

Find the volume of the rectangular prism:  	Simplify the expression: $5x - 7x + 10 - 4$	Solve: $-3 = \frac{x}{4}$
Evaluate the following: $-7 \cdot 9$	Evaluate the following: (Leave your answer as an improper fraction, but remember to *reduce if necessary!*) $\frac{2}{5} \div \frac{4}{7}$	Name each point on the graph:  A: (,) B: (,) C: (,)
Write an expression to represent the following: *"the quotient of a number and 7"*	If $a = 2$, $b = 5$, $c = -1$, evaluate the following expression: $b(a + c)$	Graph the inequality on the number line below. $x > -3$ 

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Preparing for Pre-Algebra!

Week 5

Find the MEAN for the following set of numbers: $4, 8, 7, 5, 9, 3$	Change the following mixed number into an improper fraction. $2\frac{3}{8}$	Simplify the expression: (*use the distributive property*) $2(5x - 3)$
Evaluate the following: $3 \cdot 7 - 5$	List all *factors* of 24:	Angelina gets a weekly allowance. This week she spent $3 on a stuffed animal. She still has $4 left. *Write an <u>equation</u> to represent that she had some money, spent some money, and has some money left. DO NOT SOLVE.*
Simplify the expression: $-2x - 3x - 5 - 2$	Round to the nearest TENTH. 38 *is what percent of* 60?	Solve: $30 = \ -15c$

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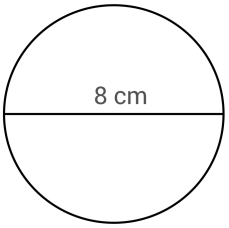
Preparing for Pre-Algebra!

Week 6

Solve: $-11 = 9 + c$	Find the area of the circle:  	Erica brought her leftover Halloween candy to school to share with her friends. After passing it out, each friend received 6 pieces each. If Erica brought 30 pieces of candy to school, *how many friends did she share with?*
Simplify the expression: $x + 6 + 4x + 3$	Evaluate the following: (Leave your answer as an improper fraction, but remember to *reduce if necessary!*) $\frac{1}{4} - \frac{3}{8}$	Write the following as a PERCENT: 2.8
You roll a six-sided die. *What is the probability that you will roll a factor of 6?*	Solve: $5n - 5 = -45$	Simplify the expression: $-5(3 + x)$

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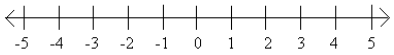
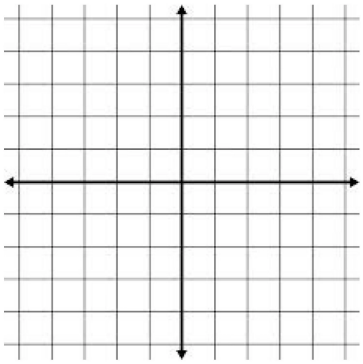
Preparing for Pre-Algebra!

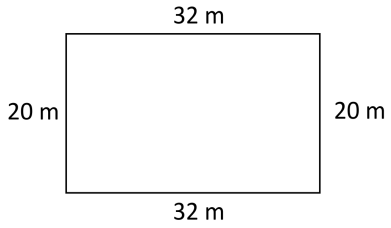
Week 7

Simplify the expression: $-4x + 2 + 2x - 5$	Graph the inequality on the number line below. $x \leq 2$  	Solve: $\frac{a}{-4} = 8$
Graph the following three points on the coordinate plane: $(0, 3),\ (-4, 2),\ (-1, 0)$ 	Simplify the expression: $4(5 - 2x) + 8$	Solve the proportion: Round to the nearest TENTH. $\frac{4}{c} = \frac{7}{2}$
Solve: $-14 = \frac{x}{2} - 5$	Arnold runs 5 miles each day that he trains. This month, Arnold trained for many days and ran a total of 95 miles. *Write an <u>equation</u> to represent the above situation.* *DO NOT SOLVE.*	Evaluate the following: $8 - 2 \cdot 3$

Name _____

Preparing for Pre-Algebra!

Week 8

Find the area of the rectangle:  	Simplify the expression: $-6(2x-4)$	List the first ten *multiples* of 9:
Write an expression to represent the following: *"the product of negative four and a number"*	If $a=-3,\ b=1,\ c=-3,$ evaluate the following expression: $ac+b$	Simplify the expression: $-4+x-2-3x+5$
Evaluate the following: $\frac{28}{7}+-3$	Evaluate the following: (Leave your answer as an improper fraction, but remember to *reduce if necessary!*) $\frac{1}{4}\cdot\frac{3}{8}$	Solve: $-5=c+10$

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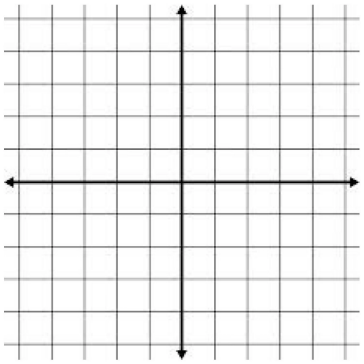
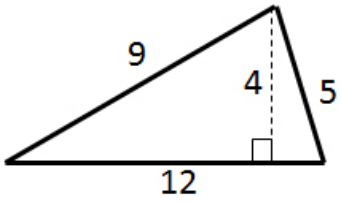
Preparing for Pre-Algebra!

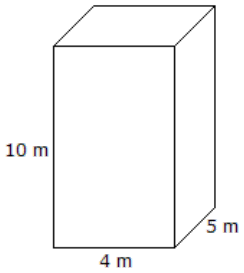
Week 9

Change the following mixed number into an improper fraction. $5\frac{2}{7}$	Solve: $10 = 5r$	Graph the following three points on the coordinate plane: $(0, -1),\ (3, -2),\ (-4, 2)$ 
Solve: $6 = 3x - 3$	Rebecca won 18 tokens at the arcade. She didn't know she had a hole in her pocket, so she ended up losing some of the tokens. Alissa felt bad that Rebecca had lost some tokens, so she gave Rebecca 5 of hers. *Write an <u>expression</u> to represent the number of tokens Rebecca has now. DO NOT EVALUATE.*	Find the area of the triangle: 
Simplify the expression: $10(x - 7) - 6$	Write the following as a DECIMAL: 5%	List all *factors* of 60:

Name _____

Preparing for Pre-Algebra!

Week 10

Simplify the expression: $3 - 4 - 2x + 5 + 7x - 1$	Write the following as a DECIMAL: $4\frac{2}{5}$	Solve: $m - 8 = -20$
List the first ten *multiples* of 7:	Find the volume of the rectangular prism:  	Evaluate the following: (Leave your answer as an improper fraction, but remember to *reduce if necessary!*) $\frac{1}{4} \div \frac{3}{8}$
Stephanie is baking cupcakes with her dad. Each batch makes 12 cupcakes. Stephanie's family ate 5 of the cupcakes, but she still had 31 to take to school. *How many batches of cupcakes did Stephanie and her dad make together?*	Graph the inequality on the number line below. $n < 4$  	Simplify the expression: $-8(9x + 4)$

Name _____