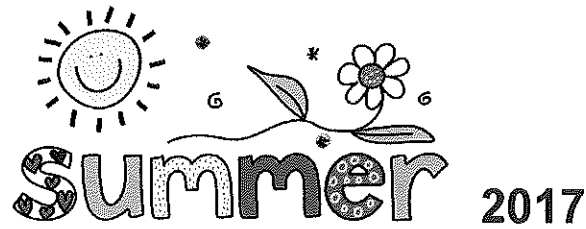


Name: \_\_\_\_\_



CENTRAL MIDDLE SCHOOL  
SUMMER MATH ASSIGNMENT  
All Incoming 8<sup>th</sup> Graders

This packet is designed to review the topics that were taught this past school year and have been identified as crucial for success in 8<sup>th</sup> Grade. There are 40 problems separated into 5 problems a week for 8 weeks. Please show as much work as you can for each problem. These review sheets will be collected the first week of school.

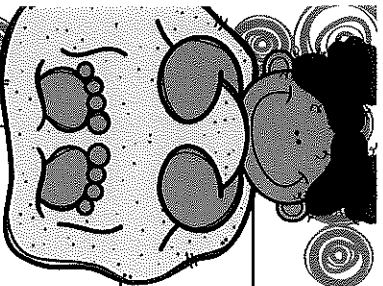
**Review Topics**

- \*Percents
- \*Geometry (Surface Area & Volume)
- \*Probability
- \*Slope
- \*Distance & Midpoint Formulas
- \*Solving One-Step Equations
- \*Solving Multi-Step Equations
- \*Simplifying Expressions (With Exponent Rules)

Have a great summer! ☺

*Mrs. Sepe*





# Week 1

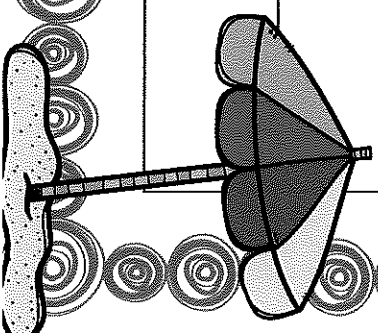
Problem	Work/Answer
1. Simplify. $(x^2 + 4x + 3) + (x^2 - 3x + 7)$	
2. How many three-letter permutations can you make using the letters in SUMMER?	
3. Find the volume of a sphere with a diameter of 5 m.	
4. Solve. $3x + 4 = 19$	
5. Solve for w. $H = 3w + 2$	

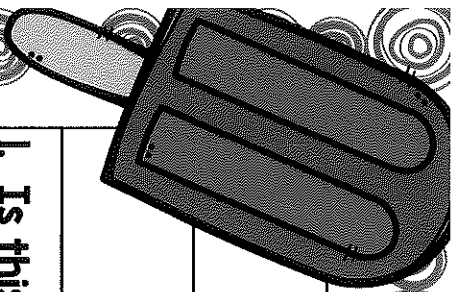
# Week 2

## Problem

## Work/Answer

1. You have 3 red seashells, 5 blue seashells and 2 yellow seashells. What is the probability of picking a red seashell, then without replacing picking a yellow seashell?
2. Three popsicles sell for  $qq$  cents. Find the cost of 15 popsicles.
3. Find the perimeter of an equilateral triangle that has a side measure of 60 cm.
4. Find the slope of the line through  $(-4,1)$  and  $(6,3)$ .
5. Solve.  $5 + \frac{c}{9} = -31$

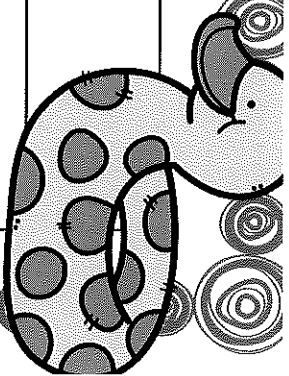




# Week 3

Problem	Work/Answer
1. Is this relation a function? $\{(-2,12), (-2, 5), (-2, 4), (-2,3)\}$	
2. Simplify. $(x^2 + 10x + 9) - (x^2 + x + 1)$	
3. Find the distance between (0,0) and (4,6). Round to the nearest tenth.	
4. Find the volume of a cone with a radius of 2 cm and a height of 4 cm.	
5. Solve. $\frac{3}{5}b - 8 = 4$	

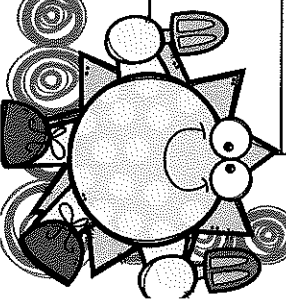
# Week 4

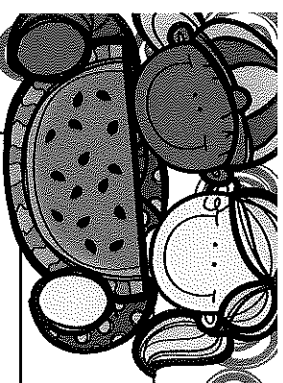


<b>Problem</b>	<b>Work/Answer</b>
1. A ramp leading to the beach forms a $28^\circ$ angle with the ground. If the base of the ramp is 15 ft long, how high does the ramp reach?	
2. Find the percent of change from 8.8 to 30.	
3. Simplify. $\frac{1}{6x} + \frac{1}{4}$	
4. Find the surface area of a cylinder with a diameter of 2 cm and a height of 4 cm.	
5. Solve. $\frac{3}{5}y + \frac{2}{5} = \frac{4}{5}$	

# Week 5

Problem	Work/Answer
1. What percent of 3 is 15?	
2. Find the midpoint of (0,1) and (4,7).	
3. Find the area of a circle with a diameter of 10 ft.	
4. Simplify. $(3x^2 - x + 3) - (2x^2 - 2x - 4)$	
5. Solve. $2(7b - 6) - 4 = 12$	





# Week 6

Problem	Work/Answer
1. Simplify. $\frac{5}{8x} \div \frac{7}{16}$	
2. Simplify. $(2x^2 - 4x) - (x^2 - 3x - 5)$	
3. Simplify. $\left(\frac{2y}{5x}\right)^3$	
4. Simplify. $b \cdot c^2 \cdot b^6 \cdot c^2$	
5. Solve. $0.015x + 3.45 = 4.65$	

# Week 7

**Problem**

**Work/Answer**

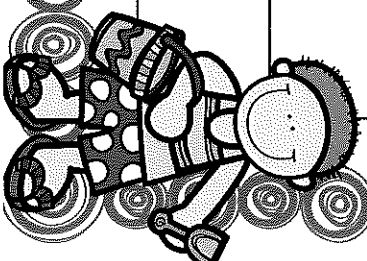
1. How many three-letter permutations can you make using the letters in BEACH?

2. Simplify.  $-(2xy^4)^3$

3. Simplify.  $2x(x^2 - x + 2)$

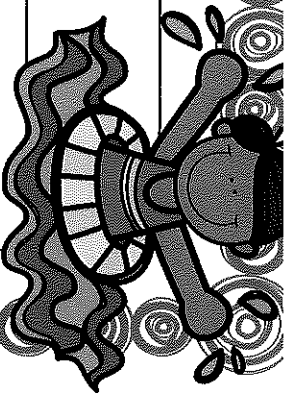
4. Find the surface area of a sphere with a diameter of 15 in.

5. Solve.  $12y + 3 = 9y - 15$





# Week 8



Problem	Work/Answer
1. Write a number sentence that illustrates the associative property of addition.	
2. The area of a triangle is 30 square inches. The height is 5 in. Find the base.	
3. Simplify. $(-2c + 3d)(-5) + 3(-2c) - (-8d)$	
4. Simplify. $x^2(3x^2 + 2x - 5)$	
5. Solve. $3(2b + 6) = 4b - 8$	