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Paula Fusco
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Westerly Public Schools
School Committee Goals:

Support excellence in student
performance.

Recruit, retain, and develop
high quality staff.

Fully engage parents and
community.

Develop and implement
comprehensive financial
strategy.

Improve and maintain
Westerly School Facilities.

WMS Summer Math Packet
2017

For incoming 7th graders

Dear Parent/Guardian:

This summer, students are given the opportunity to enhance and broaden their mathematical background by completing a summer math packet. The packets can be found on the Westerly Public School Web Page; www.westerly.k12.ri.us

For those who do not have computer access, the packets will be placed in the main office at Westerly Middle School and in the main office at 23 Highland Avenue.
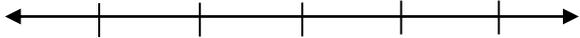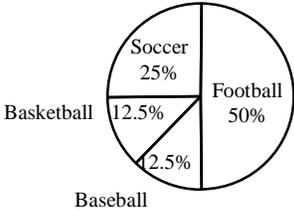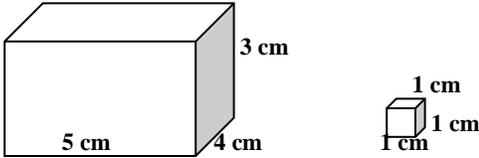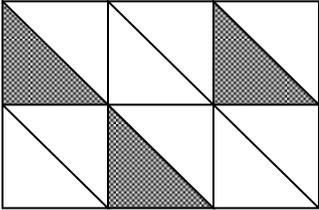
The problems in this packet are designed to help students review topics from previous mathematics courses that are important to their success. Please try to have students attempt each problem and show the work that goes with that answer. Bring the packet with you to your math class in September.

Thank you,
The Westerly Middle School Math Department

Summer Review for students who have COMPLETED Math 6
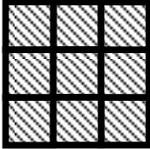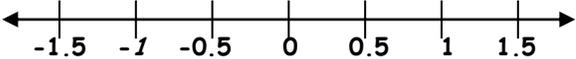Show your work. Use extra paper if needed and attach it to the packet.
Week #1

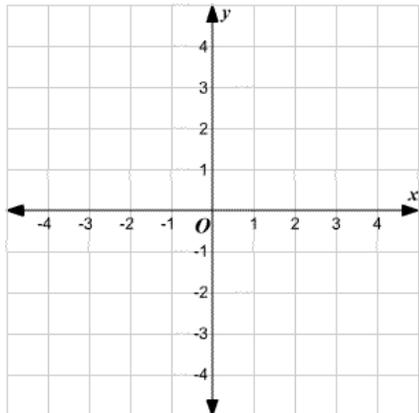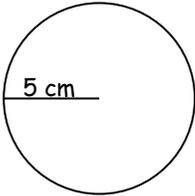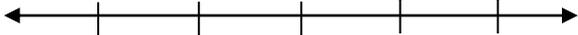**Name:**

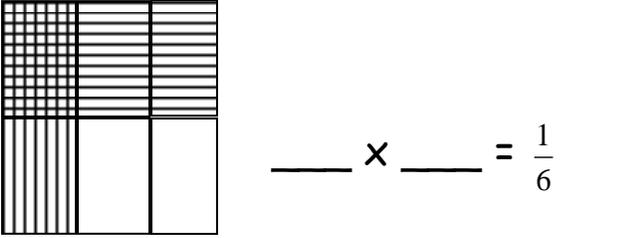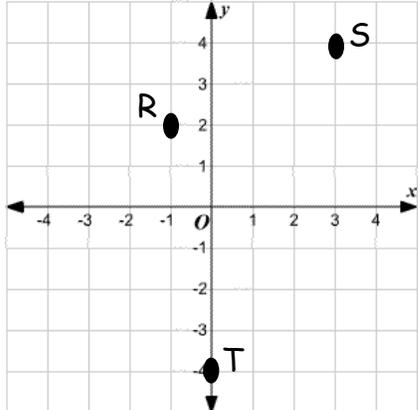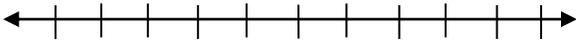|	
1. Write 40% as a simplified fraction and as a decimal number.	2. Graph: $x \leq 3$ Is this problem an example of an expression, an equation, or an inequality?
3. 6 out of 50 states are in the New England region. What ratio of the United States is **not** in New England?	4. Write each repeated multiplication in exponential form: 3 x 3 x 3 x 3 _____ 5 x 5 x 7 x 7 x 7 _____ 4 x n x n x n x **m** x **m** _____
5. a) One out of every four students surveyed chose _____ as their favorite sport. b) How many students said football was their favorite sport? _____ Soccer 25% Football 50% Basketball 12.5% 12.5% Baseball **200 Sixth Graders Were Surveyed**	6. 3 cm 5 cm 4 cm 1 cm 1 cm 1 cm a) Estimate the number of centimeter cubes you will need to fill the large box (rectangular prism). _____ b) If you covered the bottom with one layer of centimeter cubes, how many would you need? _____ c) How many such layers would be in this box? _____
7. On January 1, Betsy was 5 feet, $4\frac{1}{2}$ inches (5' $4\frac{1}{2}$") tall. By the end of March she grew $1\frac{3}{4}$ inches. How tall was she at the end of March?	8. What percent of the figure below is shaded?
9. Find the value of the expressions below. 2^1 = _____ 2^2 = _____ 2^3 = _____ 2^4 = _____	10. Create an equation to show an example of the additive identity property.

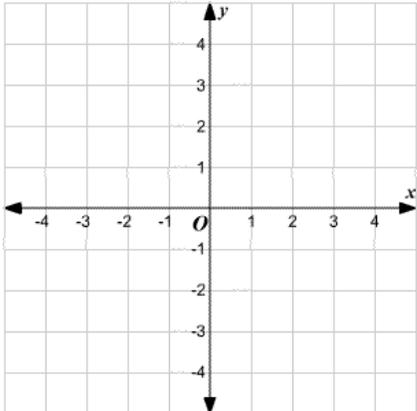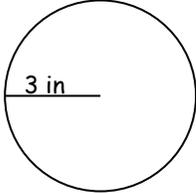|	
1. If 6 cans of soup cost $1.50, how much will 9 cans cost?	2. Write an exponential expression to represent the number of small squares in the diagram.
3. Jim's backpack weighs 3 kg when filled. How many pounds is this, approximately?	4. Consider the inequality statement: $2 \geq x$ Write another inequality statement that means the same thing about the values of 2 and x.
5. Is the value of these expressions the same? Explain, and show your work. $4 \cdot 6 - 4$ $4(6 - 4)$	6. Write 80% as a fraction in lowest terms. _____ Write 80% as a decimal. _____ Show the decimal on the number line. Draw a picture to show 80%.
7. You toss two coins, each with "heads" on one side and "tails" on the other side. What is the probability that both of them land as "tails?"	8. True or False. All triangles are congruent. _____ Explain your answer.
9. Elizabeth had ¾ of her birthday candy left. She gave Toni ½ of what she had. How much of her original candy does she have left?	10. Write **sometimes**, **always**, or **never**. a) a negative integer is less than a positive integer. _____ b) a negative integer is less than another negative integer. _____

1. State at least one way in which the patterns are the same and at least one way in which the patterns are different. a. 15, 20, 25, 30, 35 b. 15, 10, 5, 0, -5	2. Graph these ordered pairs: A (1, 3) B (-2, 0) C (3, -4)
3. Use the formula $A = \pi r^2$ and find the area of the circle. $\pi = 3.14$ 5 cm	4. Use the multiplicative property of zero to complete the statement about the variable n: n x 0 = _____
5. Circle the smallest integer. Draw a number line showing all four numbers to prove your answer. a) 0 b) -5 c) 5 d) -1	6. A jogger runs completely around the outside of a football field. If the field is a rectangle 360 feet long and 160 feet wide, how far will the jogger run after one time around? Show how you solved the problem.
7. Simplify your answer. John's room is 5 1/2 yards long and 4 2/3 yards wide. What is the area of his room?	8. Graph: x > -2
9. Compare. Use >, <, or =. $\frac{3}{4}$ ◯ $\frac{4}{5}$ Which fraction is larger? _____	10. The dimensions of a cereal box are 18"x3"x10" in. What is the volume of the box?

1. Lina is making trail mix for a hiking trip. She has 2 ½ cups of peanuts, 3 ¼ cups of raisins, and 2 2/3 cups of banana chips. How many cups of mix can she make?	2. How do you know that 50 is not a perfect square?
3. Create a multiplication problem whose product is 1/6, indicated by the double-shaded part of the square below. _____ × _____ = $\frac{1}{6}$	4. Write the coordinates of the points shown:
5. Circle the numbers that are the same as 50%. $\frac{1}{2}$ 5% 0.5 5 $\frac{5}{10}$ .50	6. This is 25% of a certain square, ABCD. Draw 100% of square ABCD.
7. Abdi's bowling scores for June were 117, 98, 104, 121, 105, 104, 120 and 111. What is the mean of this data? _____ Which measure(s) of center would **not** be helpful to describe this data? Explain.	8. There are 25 paper plates in a package. How many packages are needed if 160 students are to attend a picnic.
9. <u>Logical thinking puzzle:</u> After dinner and dessert, the five friends left the restaurant. • Dana left after Paul but before Tyler. • Paul left between Alma and Chris. • Chris was the third person to leave. In what order did the friends leave?	10. The mean of a particular set of seven numbers is 4. Six of the numbers in the set are known: 1, 2, 2, 5, 7 and 8. Identify the missing number: _____ (Hint: Use a number line to think about mean as a balance point.)

1. Explain why the probability of an event must be in between 0 and 1.	2. The ratio of girls to boys in a group is 3 to 5. Write this ratio in two other ways.
3. Write the inequality statement that describes the graph below. -5 -4 -3 -2 -1	4. Find the value of the expression below: $$\dfrac{16-9+(3\times5)}{3}$$
5. Multiply. $$2\dfrac{1}{3} \ \times \ 1\dfrac{1}{5}$$	6. How do you know that 14 is not in the sequence 0, 4, 8, 12, ….?
7. Graph: A (2,1). Graph four more points whose distance from A is 3 units. 	8. Use the formula $C = 2\pi r$ to find the circumference of this circle. π = 3.14 3 in
9. Create a diagram to represent the expression below. 4^2	10. Matthew can usually cover 5.8 miles in one hour riding his bicycle. If he pedals twice as fast, how many hours it will take him to ride 36 miles?