Bayonne Public Schools

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Dear Parents/Guardians,
As the end of the school year approaches, the Mathematics department has prepared a Summer Bridges Packet for your child to complete over the summer months.

These packets are:

- To reinforce previous mathematics topics they learned throughout the year
- To keep mathematics topics current
- To move forward with new mathematics vocabulary words to prepare students for future mathematics success

All assignments must be presented to your child's mathematics teacher no later than **September 18, 2019.** The packet will be graded. Students must show work for credit. In addition, students will receive a maximum of 10 points towards the first mathematics assessment in marking period one based on the correct completion of the summer bridges assignment.

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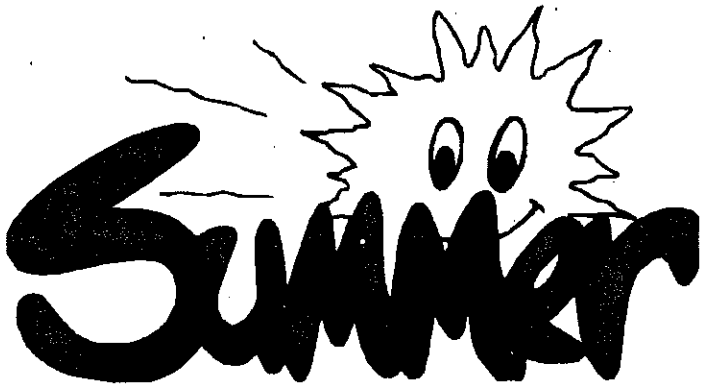
"The Bayonne Public School Family- Moving From Good to Great"



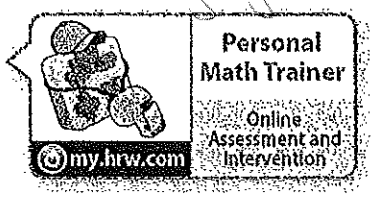
Bridges
Grade 6
Into
Grade 7

Name_____

School_____

GRADE 6 PART 1

Review Test



Selected Response

1. Suppose you have developed a scale that indicates the brightness of sunlight. Each category in the table is 5 times brighter than the category above it. For example, a day that is dazzling is 5 times brighter than a day that is radiant. How many times brighter is a dazzling day than a dim day?

Sunlight Intensity	
Category	**Brightness**
Dim	2
Illuminated	3
Radiant	4
Dazzling	5

Ⓐ 125 times brighter

Ⓑ 625 times brighter

Ⓒ 3 times brighter

Ⓓ 25 times brighter

2. Patricia paid $584 for 8 nights at a hotel. Find the unit rate.

Ⓐ $\frac{\$146}{1 \text{ night}}$ Ⓒ $\frac{\$37}{1 \text{ night}}$

Ⓑ $\frac{\$584}{1 \text{ night}}$ Ⓓ $\frac{\$73}{1 \text{ night}}$

3. Valerie sold 6 tickets to the school play and Mark sold 16 tickets. What is the ratio of the number of tickets Valerie sold to the number of tickets Mark sold?

Ⓐ 16 to 6 Ⓒ 2 to 8

Ⓑ 2 to 3 Ⓓ 3 to 8

4. Grant and Pedro are comparing their stocks for the week. On Monday, their results were opposites. Explain how you would graph their results for Monday if Grant lost $4.

Ⓐ Grant's point is 4 units to the right of 0 on a number line, and Pedro's point is 4 units to the left of 0.

Ⓑ Grant's point is 4 units to the right of 0 on a number line, and Pedro's point is the same point.

Ⓒ Grant's loss is a point 4 units to the left of 0 on a number line, and Pedro's point is 4 units to the right of 0.

Ⓓ Grant's loss is a point 4 units to the left of 0 on a number line, and Pedro's point is the same point because it's already negative.

5. The fuel for a chain saw is a mix of oil and gasoline. The label says to mix 5 ounces of oil with 15 gallons of gasoline. How much oil would you use if you had 45 gallons of gasoline?

Ⓐ 21 ounces Ⓒ 15 ounces

Ⓑ 1.67 ounces Ⓓ 135 ounces

6. A stack of blocks is 12.3 inches tall. If there are 10 blocks stacked one on top of the other, how tall is each block?

Ⓐ 1.33 inches Ⓒ 2.3 inches

Ⓑ 1.13 inches Ⓓ 1.23 inches

7. Which temperature is warmest?

Ⓐ 16 °F Ⓒ −21 °F

Ⓑ −16 °F Ⓓ 21 °F

8. Each student needs a pencil and an eraser to take a test. If pencils come 8 in a box and erasers come 12 in a bag, what is the least number of boxes and bags needed for 24 students to each have a pencil and an eraser?

Ⓐ 3 boxes of pencils, 2 bags of erasers

Ⓑ 1 box of pencils, 1 bag of erasers

Ⓒ 8 boxes of pencils, 12 bags of erasers

Ⓓ 2 boxes of pencils, 3 bags of erasers

9. Find the quotient $7\frac{1}{6} \div \frac{5}{9}$.

Ⓐ 12 Ⓒ $12\frac{9}{10}$

Ⓑ $13\frac{1}{2}$ Ⓓ $1\frac{13}{30}$

10. Find the product 4.7×4.75.

Ⓐ 223.25 Ⓒ 22.325

Ⓑ 9.45 Ⓓ 2.2325

11. Carla is building a table out of boards that are 4.25 inches wide. She wants the table to be at least 36 inches wide. What is the least number of boards she can use?

Ⓐ 8 Ⓒ 9.5

Ⓑ 9 Ⓓ 153

12. How many centimeters are there in 740.2 millimeters?

Ⓐ 7402 cm Ⓒ 7.402 cm

Ⓑ 74.02 cm Ⓓ 0.7402 cm

Mini-Tasks

13. Jada is making lasagna and pizzas for a large party. Her lasagna recipe calls for $1\frac{1}{4}$ cups of tomato paste, and her pizza recipe uses $\frac{1}{2}$ cup of tomato paste per pizza. She will double her lasagna recipe and make 5 pizzas. Write and evaluate an expression for how many $\frac{3}{4}$-cup cans of tomato paste she will need in all.

14. Explain how you can use multiplication to find the quotient $\frac{3}{5} \div \frac{3}{15}$. Then evaluate the expression.

15. You are working as an assistant to a chef. The chef has 8 cups of berries and will use $\frac{2}{3}$ cup of berries for each dessert he makes. How many desserts can he make?

Performance Task

16. School A has 216 students and 12 classrooms. School B has 104 students and 4 classrooms.

Part A: What is the ratio of students to classrooms at School A?

Part B: What is the ratio of students to classrooms at School B?

Part C: How many students would have to transfer from School B to School A for the ratios of students to classrooms at both schools to be the same? Explain your reasoning.

COMMON CORE

GRADE 6 PART 2

Review Test

Selected Response

1. Kahlil is recording a beat for a song that he is working on. He wants the length of the beat to be more than 17 seconds long. His friend tells him the beat needs to be 9 seconds longer than that to match the lyrics he has written.

Write an inequality to represent the beat's length. Give three possible beat lengths that satisfy the inequality.

Ⓐ $t < 17$
8, 6, 5

Ⓒ $t > 8$
27, 35, 33

Ⓑ $t > 26$
27, 35, 33

Ⓓ $t < 26$
8, 6, 5

2. Write an expression for the missing value in the table.

Tom's Age	Kim's Age
11	14
12	15
13	16
a	?

Ⓐ $a + 16$

Ⓒ $a + 1$

Ⓑ $a + 11$

Ⓓ $a + 3$

3. A plant's height is 1.6 times its age. Write an equation for the situation. Tell what each variable you use represents.

Ⓐ h = plant's height; y = plant's age; $1.6 = hy$

Ⓑ h = plant's height; y = plant's age; $y = 1.6h$

Ⓒ h = plant's age; y = plant's height; $h = 1.6y$

Ⓓ h = plant's height; y = plant's age; $h = 1.6y$

4. A driveway is 162 feet long, 6 feet wide, and 4 inches deep. How many cubic feet of concrete will be required for the driveway?

Ⓐ 355 ft^3

Ⓒ 3,888 ft^3

Ⓑ 324 ft^3

Ⓓ 254 ft^3

5. Write the phrase as an algebraic expression.

6 less than a number times 11

Ⓐ $6y - 11y$

Ⓒ $11y - 6$

Ⓑ $11 \div y$

Ⓓ $11 + y$

6. Wilson bought gift cards for some lawyers and their assistants. Each lawyer got a gift card worth $\$\ell$. Each assistant got a gift card worth $\$a$. There are 14 lawyers. Each lawyer has three assistants. The expression for total cost of the gift cards is $14\ell + 42a$. Write an expression that is equivalent to the given expression.

Ⓐ $14(\ell + 2a)$

Ⓒ $14(\ell + 42a)$

Ⓑ $14(\ell + 3a)$

Ⓓ $42(\ell + 3a)$

7. At the beginning of the year, Jason had $80 in his savings account. Each month, he added $15 to his account. Write an expression for the amount of money in Jason's savings account each month. Then use the expression to find the amount of money in his account at the end of the year.

Month	January	February	March	m
Amount	$95	$110	$125	$?

Ⓐ $95 + 15m$; $275

Ⓑ $95 + m$; $107

Ⓒ $80 + 12m$; $224

Ⓓ $15m + 80$; $260

8. In a fish tank, $\frac{6}{7}$ of the fish have a red stripe on them. If 18 of the fish have red stripes, how many total fish are in the tank?

Ⓐ 26 fish Ⓒ 23 fish

Ⓑ 21 fish Ⓓ 25 fish

9. Solve the equation $s + 2.8 = 6.59$.

Ⓐ $s = 4.13$ Ⓒ $s = 9.39$

Ⓑ $s = 3.79$ Ⓓ $s = 3$

10. Which question is a statistical question?

Ⓐ How long is lunch period at your school?

Ⓑ How old is the oldest student in your class?

Ⓒ How many classrooms are there in your school?

Ⓓ What are the ages of all the people in your class?

11. In a box-and-whisker plot, the *interquartile range* is a measure of the spread of the middle half of the data. Find the interquartile range for the data set: 10, 3, 7, 6, 9, 12, 13.

Ⓐ 12 Ⓒ 6

Ⓑ 7 Ⓓ 8

12. Mike was in charge of collecting contributions for the Food Bank. He received contributions of \$50, \$80, \$60, \$50, and \$90. Find the mean and median of the contributions.

Ⓐ mean: \$66
median: \$60

Ⓒ mean: \$50
median: \$60

Ⓑ mean: \$50
median: \$66

Ⓓ mean: \$60
median: \$66

13. Which expression is NOT equivalent to the expression $11y + 5$?

Ⓐ $0.5(22y + 10)$

Ⓑ $5y + 11 + 6y - 6$

Ⓒ $5(2y + 1) + y$

Ⓓ $6y + 3 + 5y - 2$

Mini-Tasks

14. It costs \$9 to go to Pete's Pottery Place to make your own bowls for \$3 per bowl. Natalie goes to Pete's Pottery Place and makes b bowls. She decides to make bowls 5 days this month so she can sell them at a crafts fair.

Part A: Write an expression that will represent Natalie's total cost for this month.

Part B: If she makes 4 bowls each time she goes to Pete's Pottery Place, what will her total cost be?

15. To find the mileage, or how many miles per gallon a car can travel, you can use the expression $\frac{m}{g}$, where m is the distance in miles and g is the number of gallons of gas used. Find the mileage for a car that travels 576 miles on 18 gallons of gas.

Performance Task

16. ***Part A:*** Is $x = 6$ a solution of the equation $8x + 8 = 56$? Explain.

Part B: Suppose the solution $x = 6$ increases to $x = 9$, and the left side of the equation stays the same. How would the right side need to change if the solution is now $x = 9$?