Students entering 6th grade math Summer packet

Each week this summer please complete the following review sheets. Please show as much work as you can for each problem. This review sheets will be collected on Monday, September and will be counted as a quiz grade for the first quarter. The pages will be graded for accuracy and completion. You may get help from your parents but do not use calculator. Doing this review will help you to prepare for the 6th grade math skills.

Have a great summer!

York Prep Math Department.
1. One ounce is about the same as 0.06 pound. What is 0.06 written as a fraction?

   A \( \frac{6}{10} \)
   B \( \frac{1}{6} \)
   C \( \frac{1}{60} \)
   D \( \frac{6}{100} \)

2. Which of the following is equal to \( \frac{59}{1000} \)?

   A 5.9
   B 0.59
   C 0.509
   D 0.059

3. Order the numbers from least to greatest.

   4.18 4.5 4.018 0.432

4. What is the sum of 7.535 and 29.02?
5. Gary is buying two posters. One poster costs $5.43 and the second costs $13.36. How much more does the second cost than the first?

6. A huge metal container in Teddy's backyard forms a perfect cube. Its length, width, and height are each 4 feet. If it rains enough to fill the container, there will be $4^3$ cubic feet of water in it. Which of the following is equal to $4^3$?
   A) 256
   B) 64
   C) 27
   D) 12

7. Which of the following is equal to $6^7$?
   A) $6 \times 7$
   B) $6 \times 6 \times 6 \times 6 \times 6 \times 6$
   C) $7 \times 7 \times 7 \times 7 \times 7 \times 7$
   D) $6 \times 6 \times 6 \times 6 \times 6 \times 6 \times 6$

8. What value of $p$ makes the equation true?

   $32 \times 125 = (32 \times 100) + (32 \times p)$

   A) 5
   B) 20
   C) 25
   D) 32
If Brian drinks an average of 16 glasses of juice a week for 9 weeks, he will drink about 16 \times 9 glasses of juice. Which of the following is equal to 16 \times 9?

A \((10 + 9) - (6 + 9)\)
B \((10 \times 9) + (6 \times 9)\)
C \((10 \times 9) \times (6 \times 9)\)
D \((10 + 9) \times (6 + 9)\)

Justine can type 43 words per minute. At that rate, how many words can she type in 45 minutes?

Juan has 18 stickers in an album. Marissa has 4 times more stickers in her album. Marissa drew the picture below to find out how many stickers she has.

<table>
<thead>
<tr>
<th>(n)</th>
<th>number of stickers</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>18</td>
<td>18</td>
</tr>
</tbody>
</table>

Which equation represents the problem?

A \(4 \times 18 = n\)
B \(n \times 18 = 4\)
C \(n \times 4 = 18\)
D \(18 \times 18 \times 18 \times 18 = n\)
1. Which of the following is the best estimate of $812 \div 5$?

A 160  
B 200  
C 250  
D 300

2. Solve the division problem below.

$$\begin{array}{c|ccc}
\text{6} & \underline{8} & \underline{5} & \\
\hline
\text{A} & 19 & \text{R}1 & \\
\text{B} & 109 & \text{R}1 & \\
\text{C} & 109 & & \\
\text{D} & 119 & \text{R}1 & \\
\end{array}$$

3. Juanita and 4 friends are going to distribute leaflets for a Humane Society fundraiser. They want to divide the work equally. If there are 1,035 leaflets to distribute, how many does each need to take?

A 201 leaflets  
B 207 leaflets  
C 259 leaflets  
D 270 leaflets
4) Daria is using a single line of paving stones to make a straight path through her garden. The path will be 720 inches long. She is using 18 paving stones. Which of the following can be used to find \( l \), the length of each paving stone?

\[
\begin{array}{c}
720 \text{ inches} \\
\hline
1 \quad 1 \quad 1 \quad 1 \quad 1 \quad 1 \quad 1 \quad 1 \quad 1 \quad 1 \quad 1 \quad 1 \quad 1 \quad 1 \quad 1 \quad 1 \quad 1
\end{array}
\]

A \quad 720 + 18 = l \\
B \quad 720 - 18 = l \\
C \quad 720 \times 18 = l \\
D \quad 720 \div 18 = l \\

5) A spool of ribbon holds 2,400 inches of ribbon. Twenty inches of ribbon are needed for each pillow. How many pillows can be made?
6. The table shows the total amount of money Darnell earned on Friday, Saturday, and Sunday. Darnell earns $28 per hour. How can you find the total number of hours Darnell worked during the three days?

<table>
<thead>
<tr>
<th>Day</th>
<th>Total Amount Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friday</td>
<td>$168</td>
</tr>
<tr>
<td>Saturday</td>
<td>$112</td>
</tr>
<tr>
<td>Sunday</td>
<td>$196</td>
</tr>
</tbody>
</table>

7. Shirley bought 20.8 pounds of bird seed at a bargain store. She wants to fill her feeder 100 times with an equal amount. How much seed should she put in the feeder each time?

A  0.0208 pounds  
B  0.208 pounds   
C  2.8 pounds     
D  2.08 pounds

8. Find the quotient to the division problem below.

\[ 2.4 \overline{)68.64} \]
1. What is the value of the expression $10 - (8 + 6) ÷ 2 - 1$?

2. What is the first step in evaluating the expression below?

$$12 + 6 - 4 ÷ (2 + 5)$$

A. Divide 4 by 2.
B. Add 2 and 5.
C. Add 12 and 6.
D. Subtract 4 from 6.

3. What is the value of the expression below?

$$7 × (7 - 4) + 6$$
4) What is the value of the expression below?

\[9 \times (8 - 5) + 8\]

5) What is the value of \(n + 8 - n\), if \(n = 23\)?

6) There were 26 computers in the computer lab. If \(c\) represents the number of computers that were removed from the lab, which expression represents the number of computers that remain in the computer lab?

   A. \(26 - c\)
   B. \(26 + c\)
   C. \(26 \times c\)
   D. \(26 + c\)
7. Solve the equation by testing these values for $k$: 2, 3, 4, and 5.

$$12k = 48$$

A $k = 5$
B $k = 4$
C $k = 3$
D $k = 2$

8. What is the value of $11 \times k$ when $k$ is 5?

A 5
B 6
C 55
D 16

9. To observe a session of the state senate, 18 students are visiting the state capitol. They will tour the capitol in groups with $x$ chaperones. Complete the table. How many students will be in each group if $x = 9$?

<table>
<thead>
<tr>
<th>$x$</th>
<th>$18 \div x$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>18</td>
</tr>
<tr>
<td>9</td>
<td>?</td>
</tr>
<tr>
<td>6</td>
<td>3</td>
</tr>
</tbody>
</table>
1. Lucy spent $15 of her money. If \( m \) represents her money, which expression shows how much money Lucy will have left?

   A  \( 15 - m \)
   B  \( m - 15 \)
   C  \( \frac{m}{15} \)
   D  \( 15 + m \)

2. Which two fractions are equivalent to \( \frac{4}{5} \)?

   A  \( \frac{10}{12}, \frac{15}{20} \)
   B  \( \frac{25}{25}, \frac{60}{50} \)
   C  \( \frac{18}{24}, \frac{30}{28} \)
   D  \( \frac{30}{35} \)

3. Write the fraction in simplest form. Write the fraction in simplest form.

   \( \frac{9}{12} \)   \( \frac{12}{18} \)
4) The floor plan for the first floor of Tommy’s house is shown below. If the area of the kitchen is 180 square feet, which is the best estimate for the total area of the first floor of the house?

A. The kitchen is about \( \frac{1}{6} \) of the total area, so the area of the first floor is about \( 180 \times \frac{1}{6} \), or 1,080 square feet.
B. The kitchen is about \( \frac{1}{6} \) of the total area, so the area of the first floor is about \( 180 \div \frac{1}{6} \), or 30 square feet.
C. The kitchen is about \( \frac{1}{4} \) of the total area, so the area of the first floor is about \( 180 \times \frac{1}{4} \), or 720 square feet.
D. The kitchen is about \( \frac{1}{4} \) of the total area, so the area of the first floor is about \( 180 \div \frac{1}{4} \), or 45 square feet.

5) Which of these sums is greater than 1?

A. \( \frac{1}{2} + \frac{2}{3} \)
B. \( \frac{1}{3} + \frac{1}{8} \)
C. \( \frac{1}{4} + \frac{2}{5} \)
D. \( \frac{1}{5} + \frac{1}{10} \)
6) Which of these sums is less than 1?

A \[ \frac{1}{5} + \frac{3}{8} \]
B \[ \frac{2}{3} + \frac{7}{10} \]
C \[ \frac{7}{8} + \frac{3}{5} \]
D \[ \frac{4}{5} + \frac{5}{8} \]

7) The table shows the different sizes of boxes of crayons. What is the least number of Draw-It and Art Smart crayons Louis can buy so that he will have the same number of each?

<table>
<thead>
<tr>
<th>Brand</th>
<th>Number in Box</th>
</tr>
</thead>
<tbody>
<tr>
<td>Draw-It</td>
<td>6</td>
</tr>
<tr>
<td>Color Fun</td>
<td>20</td>
</tr>
<tr>
<td>Art Smart</td>
<td>15</td>
</tr>
</tbody>
</table>

8) What is the lowest common denominator you could use to subtract \( \frac{1}{6} \) from \( \frac{3}{4} \)?
1. Girls with brown eyes make up \( \frac{2}{5} \) of the class. Boys with brown eyes make up \( \frac{1}{3} \) of the class. How much of the class has brown eyes?

A. \( \frac{2}{15} \)
B. \( \frac{3}{8} \)
C. \( \frac{4}{5} \)
D. \( \frac{11}{15} \)

2. Nancy needs to complete \( \frac{3}{4} \) of her homework by 5:00. So far she has completed \( \frac{1}{3} \) of it. What part of her homework must she still complete by 5:00?

A. \( \frac{2}{3} \)
B. \( \frac{5}{12} \)
C. \( \frac{3}{7} \)
D. \( \frac{1}{4} \)

3. Olivia hopes to complete \( \frac{4}{5} \) of the levels of her computer game by the end of the week. So far, she has completed \( \frac{2}{3} \) of the levels. What part of the levels must she still complete to meet her goal?
4. Jon hiked \( \frac{3}{4} \) miles. Which point on the number line best represents the distance he hiked?

![Number line with points P, Q, R, S marked.]

5. Carla’s younger sister is \( \frac{4}{3} \) feet tall. Carla’s younger brother is \( \frac{2}{3} \) feet tall. How much taller is Carla’s sister than her brother?

6. There are 24 stanzas in a song for the school play. Samantha has memorized \( \frac{3}{4} \) of them so far. How many stanzas has she memorized?

7. Cindy has to write an 18-page report. If she has written \( \frac{1}{3} \) of her report so far, how many pages has she written?
8. What is $\frac{2}{3} \times \frac{3}{4}$?

9. What is $\frac{3}{7} \times \frac{2}{5}$?

10. What is $\frac{2}{6} \times \frac{2}{4}$?

11. Each bag of potatoes weighs $\frac{5}{4}$ pounds. How many pounds would $\frac{1}{2}$ bags of potatoes weigh?
1. Use multiplication to find the quotient.

\[3 ÷ \frac{2}{3}\]

A. \(3 \times \frac{2}{3} = 2\)
B. \(3 \times \frac{3}{2} = \frac{9}{2}\)
C. \(3 \times 2 = 6\)
D. \(3 \times 3 = 9\)

2. Use multiplication to find the quotient.

\[7 ÷ \frac{2}{3}\]

A. \(7 \times \frac{2}{3} = 2\)
B. \(7 \times \frac{3}{2} = \frac{21}{2}\)
C. \(3 \times 2 = 7\)
D. \(3 \times 3 = 9\)
3. Darrell bought a candle that had the shape of the figure below. Which solid best describes the candle?

A. cone  
B. cube  
C. prism  
D. pyramid

4. Which is a side view of the solid figure below?

A  
B  
C  
D
5. A box contains 288 sugar cubes. You open the top of the box and count 12 cubes across the front and 6 cubes along a side. How many layers of sugar cubes are in the box?

6. A tablecloth is 82 inches long. What is the length in feet and inches?
   
   A 6 ft 10 in.
   B 7 ft 2 in.
   C 8 ft 2 in.
   D 11 ft 10 in.

7. Elliot put 7 cups of tea into the pitcher shown. How many more cups of tea does he need to fill the pitcher? (1 quart = 4 cups)
1) If 1 moose weighs 1,500 pounds, how many tons do 3 moose weigh?
   
   A  4,500 T  
   B  2,000 T  
   C  2.25 T   
   D  2.5 T   

2) Which of the following tells how to change a measurement from millimeters to meters?
   
   A  Divide by 10.   
   B  Multiply by 10.  
   C  Multiply by 1,000.  
   D  Divide by 1,000.  

3) A jug contains 3.22 L of apple cider. How many milliliters of apple cider are in the jug? (1,000 mL)
   
   A  32.3 mL  
   B  322 mL   
   C  1,322 mL  
   D  3,220 mL  

Page 19
4) Sam took a survey and recorded the results in the line plot below. He asked the question, "How many siblings do you have?" How many people responded to this survey?

<table>
<thead>
<tr>
<th>Number of Siblings</th>
</tr>
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<tbody>
<tr>
<td>x</td>
</tr>
<tr>
<td>x</td>
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<tr>
<td>x</td>
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<tr>
<td>x</td>
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<tr>
<td>x</td>
</tr>
<tr>
<td>x</td>
</tr>
</tbody>
</table>

5) How many acute angles does an equilateral triangle have?

A 0 angles  
B 1 angle   
C 2 angles  
D 3 angles

6) How many sides are there in a hexagon?
7. Which of the following is an acute, equilateral triangle?

A

B

C

D

8. What is the measure of each angle of a rectangle?
1. A quadrilateral has only 2 right angles and 1 pair of parallel sides. What is the name of the quadrilateral?

A) square
B) rectangle
C) trapezoid
D) rhombus

2. What is the ordered pair for point J on the graph?
3. What is the ordered pair for point X on the graph?
What is the distance between (5, 8) and (5, 3)?

A  2 units  
B  3 units  
C  5 units  
D  11 units

What is the length of the line segment?
6. What is the pattern between the Points 1, 2, and 3?

A. right 2, up 3
B. left 3, down 2
C. left 2, down 3
D. right 3, up 2

7. Points W–Z follow the pattern up 3, left 5. If point W is (4, 4), then what is point Y?

A. (−4, 7)
B. (−9, 10)
C. (4, −1)
D. (7, −6)