Welcome to 7th Grade Math!

This is a review of the most important things you learned in 6th grade math. You should complete one or two sections each week to keep your skills sharp and to spread out the work. Be sure to scroll down as several questions have more than one part. Please do not use a calculator to solve these problems. If you are stumped, watch a video on Khan Academy or Math with Mr. J about the topic that is confusing you. Please DO NOT search for the answer on the internet or ask someone else to do the work for you.

See you in the fall!

PART 1: Ratios

3. Last year the girls' basketball team had 8 fifth-grade students and 7 sixth-grade students. What was the ratio of sixth-grade students to fifth-grade students on the team?

A. 8 : 15
B. 8 : 7
C. 7 : 8
D. 15 : 8

4. Katie's goal is to read 6 books every 3 months. Based on this goal, how many months will it take Katie to read 24 books?

A. 4
B. 8
C. 12
D. 18
The ratio of the weight of cement to the weight of sand in a concrete mixture is 1:3. Complete the table to show different weights of cement or sand in the concrete mixture.

<table>
<thead>
<tr>
<th>Pounds of Cement</th>
<th>Pounds of Sand</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>9</td>
<td>3</td>
</tr>
</tbody>
</table>

PART 2: Unit Rates and Percentages

Complete the following ratio table so that each pair of numbers represent an equivalent rate.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>1</td>
<td>21</td>
</tr>
<tr>
<td>20</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>35</td>
</tr>
</tbody>
</table>
Which of the given values will make the inequality \( n - 93 > 175 \) true? 
Select all that apply.

A \( n = 82 \)
B \( n = 105 \)
C \( n = 268 \)
D \( n = 300 \)
E \( n = 312 \)

The students in a club are selling flowerpots to raise money. Each flowerpot sells for $15.

(a) Part A
Write an expression that represents the total amount of money, in dollars, the students raise from selling \( x \) flowerpots.
Enter your expression in the box provided. Enter only your expression.

(b) Part B
The goal of the students in the club was to raise $500. They sold 43 flowerpots.
Did the students meet their goal?

A Yes, they met their goal.
B No, they did not meet their goal.

(c) Part C
The goal of the students in the club was to raise $500. They sold 43 flowerpots. By how much did students meet their goal or fall short of their goal of raising $500?

(Enter your answer without a dollar sign)
22 Sally rents a life jacket for a one-time fee of $5. She then rents a canoe for $15 per hour. Which expression represents the total cost, in dollars, to rent the life jacket and the canoe for $h$ hours?

A $5 + 15h$
B $10h$
C $15 + 5h$
D $20h$

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24 What is the solution to the equation below?

$4w = \frac{2}{3}$

A $w = \frac{2}{12}$
B $w = \frac{2}{7}$
C $w = \frac{8}{3}$
D $w = \frac{3\,1}{3}$

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28 Diana can use the equation $y = 7x$ to calculate her pay, where $y$ represents the amount of pay, and $x$ represents the number of hours worked. How many hours did Diana work if she was paid $45.50? 

A 5.5 hours
B 6 hours
C 6.5 hours
D 7 hours

PART 4: Rational Numbers, Absolute Value, and the Coordinate Plane
In the table below, match the number that corresponds to each point on the number line shown.

Order the values from smallest (top) to largest (bottom).

- \(|-1|\)
- \(|-53|\)
- \(|16|\)
- \(|-22|\)
- \(|35|\)
45 What is the value of \( \frac{2}{7} \div \frac{1}{9} \)?

A \( \frac{7}{9} \)

B \( \frac{2}{63} \)

C \( \frac{18}{7} \)

D \( \frac{3}{16} \)

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PART 6: Decimal Operations

51 What is the value of the expression \( 86.24 - 79.764 \)?

A 6.476

B 6.484

C 13.524

D 71.140

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56 What is the value of \( 0.40 \times 1.8 \)?

A 0.072

B 0.72

C 7.2

D 2.2
(b) Describe any other supports you used here.

(c) How did you feel about completing this math packet? Were the concepts familiar to you? What did you do when you were confused?