1. Find the perimeter and area of the following rectangles.

![Figure A](image1.png)  
60 ft  
12 ft

![Figure B](image2.png)  
28 in  
10 in

![Figure C](image3.png)  
3 1/2 cm  
5 2/3 cm

Note: Drawings are not to scale.

2. Find the following results.
   A. the sum of 14 and 24   B. the difference of 60 and 28
   C. 12.65 subtracted from 33.2   D. the product of 0.08 and 9
   E. the product of 14 and 0   F. the quotient of 0 and 5
   G. the quotient of 21.3 and 0.03

3. Simplify the following numerical expressions.
   A. \(48 + 212\)   B. \(2 + 6(9 - 8)^2\)   C. \(20 + 16 \div 2 \cdot 4\)
   D. \(\frac{1}{2} \cdot \frac{4}{3} - \frac{1}{6}\)   E. \(\frac{3}{4} \left(\frac{1}{3}\right)^2 + \frac{1}{6}\)   F. 0.004 + 5
   G. 3.6 + 0.1(2)   H. 2 + 4 \(\frac{2}{5}\)   I. 3 \(\frac{2}{3}\)

4. Find the values of each of the following.
   A. \(\sqrt{25}\)   B. \(\sqrt{81}\)   C. 9²   D. 5²

5. Write the prime factorization of each of the following numbers.
   A. 60   B. 48   C. 150   D. 75

6. Find the least common multiple of the following sets of numbers.
   A. \(\{4, 16, 20\}\)   B. \(\{5, 24, 60\}\)   C. \(\{2, 3, 4\}\)

7. Round 12.5476 as indicated.
   A. nearest whole number   B. nearest tenth
   C. nearest hundredth   D. nearest thousandth
8. Use estimation to find an approximate value.
   \( A. \ 98.8 + 9.6 \quad B. \ 296 + 301 \quad C. \ 6010 - 3990 \quad D. \ 203(9.5) \)

9. Fill in the missing numbers in the table below.

<table>
<thead>
<tr>
<th>Fraction or whole number</th>
<th>Decimal or whole number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \frac{1}{2} )</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>?</td>
<td>?</td>
<td>20%</td>
</tr>
<tr>
<td>?</td>
<td>0.05</td>
<td>?</td>
</tr>
<tr>
<td>( \frac{3}{2} )</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>( 8\frac{1}{2} ) %</td>
</tr>
</tbody>
</table>

10. Put each list of numbers in order from least to greatest.
   A. 0.3, 0.35, 0.039, 0.303  B. \( \frac{2}{3} \), 0.704, 0.66, \( \frac{7}{10} \)

11. Solve each problem.
   A. Your checkbook balance is $101.58. You write checks for $63.56 and $21.98. Then you deposit $45.00. What is the balance of your checkbook?
   B. A basketball team played 28 games, losing only 7. What fraction of the games was won by the team?
   C. A carpenter cuts three pieces off of a board that is \( 9\frac{1}{2} \) feet long. The lengths of the 3 pieces are 4 feet, \( 3\frac{1}{3} \) feet, and \( \frac{1}{3} \) of a foot long. How long is the fourth piece (the piece left over)?
   D. You purchase a McDonalds Happy Meal that costs $4.64. You pay with a $10 bill and 4 pennies. How much change should you receive?
   E. One-fourth of a class made an A on the first test. If there are 24 students in the class, how many made A’s?
   F. A recipe calls for \( 2\frac{1}{3} \) cups of flour. How much flour is need to make only half of the recipe?
   G. The lengths of 3 pieces of flooring baseboard are \( 3\frac{1}{2} \) ft, \( 4\frac{2}{3} \) ft, and \( 8\frac{1}{4} \) ft. Laid end-to-end, what is the total length of these baseboards?
   H. A rectangular box is 8 inches long, 4 inches wide, and 6 inches tall. What is the volume of the box?
I. One-hundred adults were surveyed about their favorite vacation spots and the results are shown in the pie-chart below.
   a. What percentage of these adults prefer to vacation at the mountains or big cities?
   b. What fraction of these adults prefer to vacation at the beach or gambling cities?

![Pie Chart]

J. The table below shows the number of girls and boys from a 3rd grade class who reported playing video games last weekend. In this class, there are 14 girls and 10 boys.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Girls</th>
<th>Boys</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friday</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Saturday</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Sunday</td>
<td>1</td>
<td>7</td>
</tr>
</tbody>
</table>

   a. What fraction of the boys played video games on Friday and Saturday?
   b. What fraction of the girls did not play video games on Saturday?
   c. What fraction of the class did not play video games on Sunday?

K. Joe’s House, located at Point A in the diagram below, is 5 blocks north from the corner of 3rd Ave and Elm St. The School, located on Elm St, and Point C on the diagram, is 12 blocks east of 3rd Ave. Assuming there is a right angle at the corner of 3rd Avenue and Elm St, how many blocks would Joe save in walking the short-cut straight from school to home instead of walking along the street?
L. The figures below represent cases of books that were purchased by the math department. What simplified fraction is represented by the shaded portion of the figure? If appropriate, find a mixed number for this fraction.

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  |   |   |   |   |   |
  |   |   |   |   |   |
  |   |   |   |   |   |
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M. A recent telephone survey of 387 adults asked which day of the week they were most likely to call in sick when they really weren’t. The results are shown in the bar graph below.

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Day of the Week
Mon    103
Tue    31
Wed    88
Thur   71
Fri    94
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According to the graph, how many of the 387 workers were most likely to call in sick on Weds through Friday?