1 On a recent trip, Carol’s car used \( \frac{7}{8} \) of a tank of gasoline. Which decimal and percent represents this amount?

A 0.0875 or 8.75%
B 0.125 or 12.5%
C 0.78 or 78%
D 0.875 and 87.5%

2 Jesse had to save 60% of the total cost to go to Band Camp during the summer. The total cost was $500.

What method could Jesse use to solve the problem?

F Set up the following proportion insert \( \frac{60}{x} = \frac{500}{100} \)
G Set up an equation \(.60n = 500\)
H Subtract 500-60
J Multiply 500 x insert \( \frac{60}{100} \)

3 Sound travels 1,088 feet per second. At this rate, how many feet \( f \) would sound travel in 10 seconds?

Which proportion could be used to solve this problem?

A \( \frac{1}{1,088} = \frac{f}{10} \)
B \( \frac{f}{1,088} = \frac{1}{10} \)
C \( \frac{1,088}{f} = \frac{10}{1} \)
D \( \frac{1,088}{1} = \frac{f}{10} \)
4 Alvin is taking a bus on a ski trip. The bus traveled 174 miles in the first 3 hours of the trip. If the ski resort is 696 miles from his home, which proportion could Alvin use to predict how many hours the bus trip to the ski resort will take?

F \[ \frac{3}{174} = \frac{h}{696} \]

G \[ \frac{3}{174} = \frac{696}{h} \]

H \[ \frac{3}{h} = \frac{696}{174} \]

J \[ \frac{696}{3} = \frac{174}{h} \]

5 A local store is selling 6 bottles of glue for $3.78. Which scale factor could be used to calculate the cost of 42 bottles of glue?

A 22.68

B 7

C 0.63

D \( \frac{1}{7} \)

6 A local store is selling 6 bottles of glue for $3.78. Which scale factor could be used to calculate the cost of 42 bottles of glue?

F 22.68

G 7

H 0.63

J \( \frac{1}{7} \)
The greatest snowfall in a 24-hour period was 76 inches, recorded in Silver Lake, Colorado.

Which of these is the same as 76 inches?

A \[ \frac{1}{6} \] feet

B 2.5 yards

C 7.6 feet

D \[ \frac{1}{2} \] yards

Jamal drank 3 pints of milk for breakfast and 2 pints of milk for lunch each day for 7 days. Which equation could be used to determine \( q \), the number of quarts of milk Jamal drank in 7 days?

F \[ q = \frac{7(3+2)}{16} \]

G \[ q = \frac{7(3+2)}{8} \]

H \[ q = \frac{7(3+2)}{4} \]

J \[ q = \frac{7(3+2)}{2} \]
9 Michelle is helping the theater club make costumes for a play. She needs to purchase some ribbon that costs $3.60 per yard. At this rate, how much will $12\frac{3}{4}$ feet of ribbon cost?

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Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

10 Mr. Franco's records show that 44% of his students bring their own lunches to school. Which decimal and fraction represents the percent of students in Mr. Franco's class who do NOT bring their lunches to school?

- **F** 0.56 and $\frac{14}{25}$
- **G** 0.44 and $\frac{11}{25}$
- **H** 0.056 and $\frac{14}{25}$
- **J** 0.044 and $\frac{11}{25}$
11 Kim's class has 16 boys and 8 girls. Which represents the part of the class that is boys?
A 2 to 1
B 50%
C 0.3
D \(\frac{2}{3}\)

12 Kim's class has 16 boys and 8 girls. Which represents the part of the class that is boys?
F 2 to 1
G 50%
H 0.3
J \(\frac{2}{3}\)
John’s car averages 240 miles on 15 gallons of gas. A full tank of gas holds 20 gallons. If his gas gauge indicates he has a \( \frac{1}{4} \) tank of fuel, John will need to locate a service station before he runs out of gas.

How might John decide how much further he can travel?

A 240 : 20 is the same as \( x : 15 \). Solve for \( x \)

B \( \frac{1}{4} \) of 20 gallons is 5 gallons left in the tank. 15 gallons \( \div 3 = 5 \) gallons, so 240 miles \( \div 3 \) should indicate the maximum miles for which he has sufficient fuel.

C \( \frac{1}{2} \times 240 \text{ miles} = 60 \text{ miles} \)

D 240 miles \( \div 15 \) gallons = 16 miles per gallon

An advertisement for Snackers Crackers claims that eight out of 10 students prefer Snackers Crackers to all other brands tested. There were 250 students surveyed.

Which of these could be used to determine \( x \), the number of students surveyed who prefer Snackers to all other brands?

F \( \frac{8}{10} = \frac{250}{x} \)

G \( \frac{8}{10} = \frac{x}{250} \)

H \( \frac{x}{8} = \frac{10}{250} \)

J \( \frac{8}{250} = \frac{10}{x} \)
In a middle school of 635 students, their favorite foods are shown in the graph below.

![Pie chart showing favorite foods]

Complete the table with the total number of students that enjoy their favorite kind of food.

<table>
<thead>
<tr>
<th>Favorite Foods</th>
<th>Number of students</th>
<th>Percentage of student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hamburgers</td>
<td></td>
<td>31%</td>
</tr>
<tr>
<td>Pizza</td>
<td></td>
<td>31%</td>
</tr>
<tr>
<td>Tacos</td>
<td></td>
<td>23%</td>
</tr>
<tr>
<td>Chicken</td>
<td></td>
<td>15%</td>
</tr>
</tbody>
</table>

At a veterinarian’s office, the recommended amount of a certain medicine is based on the weight of the dog. For a 20-pound dog, 3 milligrams of the medicine is needed.

Which of these could be used to determine \( x \), the recommended amount of medicine needed for a 50-pound dog?

F \[
\frac{3}{20} = \frac{50}{x}
\]

G \[
\frac{3}{20} = \frac{x}{50}
\]

H \[
\frac{3}{50} = \frac{x}{50}
\]

J \[
\frac{3}{20} = \frac{x}{20}
\]
17 Which of the following is an equivalent rate to running 5.4 miles in 43.2 minutes?
   A Running 1 mile in 0.125 minutes
   B Running 1 mile in 0.8 minutes
   C Running 10.8 miles in 21.6 minutes
   D Running 3.5 miles in 28 minutes

18 The school cafeteria took a survey and made the table below from the data.

<table>
<thead>
<tr>
<th>Cookie Preference</th>
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<tbody>
<tr>
<td>Type Of Cookie</td>
</tr>
<tr>
<td>Chocolate Chip Cookie</td>
</tr>
<tr>
<td>Sugar Cookie</td>
</tr>
<tr>
<td>Coconut Cookie</td>
</tr>
<tr>
<td>Oatmeal Cookie</td>
</tr>
<tr>
<td>Peanut Butter Cookie</td>
</tr>
</tbody>
</table>

What fraction of the students surveyed preferred coconut cookies?
   F \( \frac{1}{8} \)
   G \( \frac{1}{3} \)
   H \( \frac{1}{7} \)
   J \( \frac{1}{5} \)