Unit 4, Lesson 12: Finding the Percentage

1. A music store marks up the instruments it sells by 30%.
   
a. If the store bought a guitar for $45, what will be its store price?

   b. If the price tag on a trumpet says $104, how much did the store pay for it?

   c. If the store paid $75 for a clarinet and sold it for $100, did the store mark up the price by 30%?

2. A family eats at a restaurant. The bill is $42. The family leaves a tip and spends $49.77.
   
a. How much was the tip in dollars?

   b. How much was the tip as a percentage of the bill?
3. The price of gold is often reported per ounce. At the end of 2005, this price was $513. At the end of 2015, it was $1060. By what percentage did the price per ounce of gold increase?

4. A phone keeps track of the number of steps taken and the distance traveled. Based on the information in the table, is there a proportional relationship between the two quantities? Explain your reasoning.

<table>
<thead>
<tr>
<th>number of steps</th>
<th>distance in kilometers</th>
</tr>
</thead>
<tbody>
<tr>
<td>950</td>
<td>1</td>
</tr>
<tr>
<td>2,852</td>
<td>3</td>
</tr>
<tr>
<td>4,845</td>
<td>5.1</td>
</tr>
</tbody>
</table>

(from Unit 2, Lesson 7)

5. Noah picked 3 kg of cherries. Mai picked half as many cherries as Noah. How many total kg of cherries did Mai and Noah pick?

A. \(3 + \frac{1}{2}\)
B. \(3 - \frac{1}{2}\)
C. \((1 + \frac{1}{2}) \cdot 3\)
D. \(1 + \frac{1}{2} \cdot 3\)

(from Unit 4, Lesson 4)