

# Lesson 1 Problem-Solving Practice

## Using the Percent Proportion

<p>1. A local Mothers group conducted a survey of 1074 youths age 19 and under about chores. 66% of those surveyed said they do not clean their rooms because they do not like to. How many of the 1074 youths gave that response?</p>	<p>2. The table shows the recent number of curbside recycling programs in four geographical regions of the United States. What percent of the country's recycling programs are in the Midwest?</p> <table border="1" data-bbox="1105 310 1349 667"> <thead> <tr> <th colspan="2">Curbside Recycling Programs</th> </tr> <tr> <th>Region</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Northeast</td> <td>3421</td> </tr> <tr> <td>South</td> <td>1677</td> </tr> <tr> <td>Midwest</td> <td>3572</td> </tr> <tr> <td>West</td> <td>1034</td> </tr> <tr> <td>Total</td> <td>9704</td> </tr> </tbody> </table>	Curbside Recycling Programs		Region	Number	Northeast	3421	South	1677	Midwest	3572	West	1034	Total	9704																						
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<p>3. A recent Boston Mayor's Cup race boasted the largest number of finishers in the history of the event with 825 finishers. 290 of the finishers were from the youth division. What percent of the finishers were not from the youth division? Round your answer to the nearest tenth.</p>	<p>4. Trevor received a score of 96% on his social studies test. If he answered 24 of the questions correctly, how many questions were on the test?</p>																																				
<p>5. The U.S. Food and Drug Administration requires food packagers to provide nutritional information about the food in the packaging. The label shown is from a small package of chicken tenderloins, brown rice, and mixed vegetables.</p> <table border="1" data-bbox="269 1199 548 1738"> <thead> <tr> <th colspan="2">Nutrition Facts</th> </tr> </thead> <tbody> <tr> <td colspan="2">Serving Size 1 Package (265 g)</td> </tr> <tr> <td colspan="2">Servings Per Container 1</td> </tr> <tr> <td colspan="2">Amount Per Serving</td> </tr> <tr> <td><b>Calories</b> 240</td> <td>Calories from Fat 50</td> </tr> <tr> <td colspan="2"><b>% Daily Value*</b></td> </tr> <tr> <td><b>Total Fat</b> 6 g</td> <td>8%</td> </tr> <tr> <td>Saturated Fat 3.5 g</td> <td>18%</td> </tr> <tr> <td>Trans Fat 0 g</td> <td></td> </tr> <tr> <td>Polyunsaturated Fat .5 g</td> <td></td> </tr> <tr> <td>Monounsaturated Fat .5 g</td> <td></td> </tr> <tr> <td><b>Cholesterol</b> 30 mg</td> <td>9%</td> </tr> <tr> <td><b>Sodium</b> 660 mg</td> <td>28%</td> </tr> <tr> <td><b>Potassium</b> 500 mg</td> <td>14%</td> </tr> <tr> <td><b>Total Carbohydrats</b> 29 g</td> <td>9%</td> </tr> <tr> <td>Dietary Fiber 4 g</td> <td>17%</td> </tr> <tr> <td>Sugars 4 g</td> <td></td> </tr> <tr> <td><b>Protein</b> 18 g</td> <td></td> </tr> </tbody> </table> <p>According to the label, the package contains 6 grams of fat, which is 8% of the daily value recommended for a 2000-Calorie diet. How many grams of fat are recommended for a 2000-Calorie diet?</p>	Nutrition Facts		Serving Size 1 Package (265 g)		Servings Per Container 1		Amount Per Serving		<b>Calories</b> 240	Calories from Fat 50	<b>% Daily Value*</b>		<b>Total Fat</b> 6 g	8%	Saturated Fat 3.5 g	18%	Trans Fat 0 g		Polyunsaturated Fat .5 g		Monounsaturated Fat .5 g		<b>Cholesterol</b> 30 mg	9%	<b>Sodium</b> 660 mg	28%	<b>Potassium</b> 500 mg	14%	<b>Total Carbohydrats</b> 29 g	9%	Dietary Fiber 4 g	17%	Sugars 4 g		<b>Protein</b> 18 g		<p>6. Refer to the label shown in Exercise 5. The potassium in the package is 14% of the recommended daily value. What is the recommended daily value of potassium?</p>
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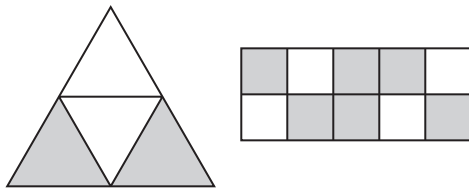
# Lesson 2 Problem-Solving Practice

## Find Percent of a Number Mentally

1. The state of Pennsylvania covers almost 29 million acres. Of the total acreage, about 53% is forest land. About how many acres of forest land are in the state of Pennsylvania?

2. In a recent year, there were 320 endangered mammals in the world. About 75% of these mammals reside outside of the United States. About how many endangered mammals are not in the United States?

3. The figures below represent two game boards. The object of the game is to toss a bean bag so that it lands on a shaded region. Which game board gives a player the best chance of throwing a bean bag so that it lands on a shaded region? Explain.



4. Sydney has \$20 and wants to buy a CD of her favorite group. She finds a two-disc set of greatest hits that costs \$18.99. The sales tax in her state is 5%. Does she have enough money to buy the CD? Explain.

5. The table shows the total area of eight states in square miles and the area of the state that is covered by water.

State	Area of state (square miles)	Water Area (square miles)
Michigan	96,716	39,912
Hawaii	10,931	4508
Rhode Island	1545	500
Massachusetts	10,555	2715
Delaware	2489	536
Maryland	12,407	2633
Florida	65,755	11,828
Wisconsin	65,498	11,188

6. Refer to the table in Exercise 5. Which state has about one-third of its area covered by water?

Which state has a water area that is about 25% of the area of the state?