LESSON

Proportional Relationships

Problem Solving: Solving Proportions

Write the correct answer.

- Euros are currency used in several European countries. On one day in October 2005, you could exchange \$3 for about 2.5 euros. How many dollars would you have needed to get 8 Euros?
- 2. A 3-ounce serving of tuna fish provides 24 grams of protein. How many grams of protein are in a 10-ounce serving of tuna fish?
- 3. Hooke's law states that the distance a spring is stretched is directly proportional to the force applied. If 20 pounds of force stretches a spring 4 inches, how much will the spring stretch if 80 pounds of force is applied?
- 4. Beeswax used in making candles is produced by honeybees. The honeybees produce 7 pounds of honey for each pound of wax they produce. How many pounds of honey is produced if 145 pounds of beeswax?

Choose the letter for the best answer.

5. For every 5 books her students read, Mrs. Fenway gives them a free homework pass for 4 days. Juan has accumulated homework passes for 12 days so far. What proportion would you write to find how many books Juan has read?

A
$$\frac{4}{12} = \frac{x}{5}$$

$$B \quad \frac{4}{5} = \frac{x}{12}$$

$$C \quad \frac{4}{5} = \frac{12}{x}$$

$$D \quad \frac{5}{12} = \frac{4}{x}$$

7. A 12-pack of 8-ounce juice boxes costs \$5.40. How much would an 18-pack of juice boxes cost if it is proportionate in price?

C \$3.60

B \$8.10

D \$12.15

6. In his last 13 times at bat in the township baseball league, Santiago got 8 hits. If he is at bat 65 times for the season, how many hits will he get if his average stays the same?

$$F = \frac{8}{65} = \frac{x}{13}$$

$$G \frac{x}{65} = \frac{13}{8}$$

$$H \quad \frac{8}{x} = \frac{65}{13}$$

$$J \quad \frac{8}{13} = \frac{x}{65}$$

8. Jeanette can swim 105 meters in 70 seconds. How far can she probably swim in 30 seconds?

F 20 meters

H 45 meters

G 245 meters

J 55 meters