

**7-3****Practice: Skills****Solving Proportions**

Determine whether each pair of ratios forms a proportion.

1.  $\frac{9}{5}$  and  $\frac{27}{15}$

2.  $\frac{16}{10}$  and  $\frac{24}{15}$

3.  $\frac{6}{18}$  and  $\frac{9}{25}$

4.  $\frac{42}{63}$  and  $\frac{28}{42}$

5.  $\frac{11}{8}$  and  $\frac{13}{10}$

6.  $\frac{22}{33}$  and  $\frac{12}{18}$

7.  $\frac{14}{17}$  and  $\frac{29}{35}$

8.  $\frac{36}{22}$  and  $\frac{30}{19}$

9.  $\frac{32}{48}$  and  $\frac{10}{15}$

10.  $\frac{320 \text{ mi}}{6 \text{ h}}$  and  $\frac{420 \text{ mi}}{8 \text{ h}}$

11.  $\frac{\$4.96}{8 \text{ oz}}$  and  $\frac{\$3.72}{6 \text{ oz}}$

12.  $\frac{25 \text{ mg}}{1.5 \text{ c}}$  and  $\frac{100 \text{ mg}}{6 \text{ c}}$

Solve each proportion.

13.  $\frac{24}{13} = \frac{a}{26}$

14.  $\frac{18}{x} = \frac{3}{36}$

15.  $\frac{3}{u} = \frac{5}{15}$

16.  $\frac{650}{6.5} = \frac{z}{5}$

17.  $\frac{2.8}{4} = \frac{7}{q}$

18.  $\frac{c}{17} = \frac{0.01}{8.5}$

19.  $\frac{0.1}{8.2} = \frac{1.8}{b}$

20.  $\frac{300}{24} = \frac{18}{j}$

21.  $\frac{4.2}{t} = \frac{8}{5}$

22.  $\frac{120}{75} = \frac{8}{m}$

**7-3****Practice: Word Problems****Solving Proportions**

**1. COOKING** Theo wants to use a cookie recipe that makes 36 cookies but he wants to reduce the number of cookies to 24. If the recipe specifies using 2 cups of sugar, how much sugar should he use?

**2. MEDICINE** In order to determine her pulse rate, June's nurse counted 18 beats in her pulse in 15 seconds. At this rate, how many beats would she have in 60 seconds?

**3. LABOR** Ed earned \$112 for 8 hours of work. At this rate, how much will he earn for 40 hours of work?

**4. TRAVEL** Rita traveled 1,250 miles in the first 3 days of her trip. At this rate, how long will it take her to travel 1,875 miles?

**5. MODELS** An architect built a model of a 220-foot tall building he is designing. The model is 25 inches tall and 10 inches wide. How wide is the actual building?

**6. TESTING** Mary is preparing for her college entrance exams. In a practice test, she answered 12 problems in 30 minutes. At this rate, how many questions can she expect to answer in 150 minutes?