

2-7**Practice**

Form K

Solving Proportions

Solve each proportion using the Multiplication Property of Equality.

1. $\frac{3}{4} = \frac{a}{12}$ **9**

2. $\frac{1}{3} = \frac{m}{21}$ **7**

3. $\frac{x}{5} = \frac{2}{3}$ **3.33**

4. $\frac{f}{24} = \frac{3}{8}$ **9**

5. $\frac{9}{7} = \frac{z}{126}$ **162**

6. $\frac{3}{10} = \frac{b}{14}$ **4.2**

Solve each proportion using the Cross Products Property.

7. $\frac{2}{5} = \frac{k}{18}$ **7.2**

8. $\frac{4}{n} = \frac{6}{7}$ **4.67**

9. $\frac{q}{-15} = \frac{1}{3}$ **-5**

10. $\frac{4}{d} = \frac{-1}{4}$ **-16**

11. $\frac{-13}{15} = \frac{k}{-5}$ **4.33**

12. $\frac{-14}{h} = \frac{-2}{5}$ **35**

13. On a scale drawing of a park, the length of a trail is 12 cm from the playground to the pond and 15 cm from the pond to the parking lot. If the actual length of the trail from the pond to the parking lot is 60 m, what is the actual length of the trail between the playground and the pond? **48 m**
14. Jennifer is ordering cake for her wedding reception. If one cake will feed 18 people, how many cakes does she need to order for 150 people? **9 cakes**

2-7

Practice (continued)
Solving Proportions

Form K

15. Julie is drawing a map of the town. She knows that City Hall is 3 miles down Main St. from the fire station. If the scale for the map is 0.25 in.: 0.5 miles, how long should Main St. be between City Hall and the fire station on the map?
1.5 in.

Solve each proportion using any method.

16. $\frac{2}{j+3} = \frac{4}{5}$ **$-\frac{1}{2}$**

17. $\frac{p+1}{6} = \frac{6}{11}$ **$\frac{25}{11}$**

18. $\frac{-4}{5} = \frac{3}{z-5}$ **$\frac{5}{4}$**

19. $\frac{15-b}{6} = \frac{-2}{3}$ **19**

20. A furniture factory makes 5 recliners for every 2 couches. If the factory makes a total of 154 recliners and couches in a day, how many recliners were made?
110 recliners
21. On the football team, two out of every seven players are seniors. If the team has 84 players, how many of the players are not seniors?
60 players

Solve each proportion.

22. $\frac{5}{n-12} = \frac{-1}{n}$ **2**

23. $\frac{4v-2}{8v} = \frac{2}{3}$ **$-\frac{3}{2}$**

24. **Writing** Describe two different ways to solve $\frac{5}{6} = \frac{x}{24}$. Demonstrate both methods.

The two methods of solving the proportion are using the Multiplication Property of Equality and the Cross Products Property.

Multiplication Prop.:

$$24\left(\frac{5}{6}\right) = 24\left(\frac{x}{24}\right)$$

$$4(5) = x$$

$$20 = x$$

Cross Products Prop.:

$$\frac{5}{6} = \frac{x}{24}$$

$$6(x) = (5)(24)$$

$$6x = 120$$

$$x = 20$$