2.5 Multiplication Property of Equality: Problem Type 2

• Example 1

Solve

$$\frac{3}{5}x = 9$$

Because $\frac{5}{3} \cdot \frac{3}{5} = 1$, we multiply by $\frac{5}{3}$ on both sides of the equation. This gives

$$\frac{5}{3} \cdot \frac{3}{5}x = \frac{5}{3} \cdot 9$$

or, equivalently, after multiplication,

$$x = 15.$$

CHECK YOURSELF 1

Solve and check.

$$\frac{2}{3}x = 18$$

CHECK YOURSELF ANSWER

1. 27.

2.5 Exercises

Name

Section Date

ANSWERS

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Solve for x and check your result.

1. $\frac{x}{2} = 4$

2. $\frac{x}{3} = 2$

3. $\frac{x}{5} = 3$

4. $\frac{x}{8} = 5$

5. $6 = \frac{x}{7}$

6. $6 = \frac{x}{3}$

7. $\frac{x}{5} = -4$

8. $\frac{x}{7} = -5$

9. $-\frac{x}{3} = 8$

10. $-\frac{x}{4} = -3$

11. $\frac{2}{3}x = 6$

12. $\frac{4}{5}x = 8$

13. $\frac{3}{4}x = -15$

14. $\frac{7}{8}x = -21$

15. $-\frac{2}{5}x = 10$

16. $-\frac{5}{6}x = -15$

17. $\frac{x}{4} = 8$

18. $-\frac{x}{5} = -3$

19. $\frac{2}{3}x = 18$

20. $\frac{3}{4}x = 24$

21. $\frac{1}{4}x = -3$

22. $\frac{4}{5}x = 20$