Name _____ Date _____

LESSON 3.1

Practice A

For use with pages 132–140

State the inverse operation.

1. Add 23.

2. Subtract -18.

3. Add -50.

Check whether the given number is a solution of the equation.

4. $x - 8 = 11$; 19

5. $x + 4 = 7$; 11

6. $x - 5 = 13$; 18

Solve the equation.

7. $x + 6 = 14$

8. $n + 3 = 8$

9. $15 = w + 4$

10. $y - 7 = 12$

11. $a - 2 = 10$

12. $22 = 8 + m$

Complete the sentence.

13. To isolate the variable in $\frac{1}{5}x$, multiply by __?__ or divide by __?__.

14. To isolate the variable in $4x$, multiply by __?__ or divide by __?__.

15. To isolate the variable in $-\frac{2}{3}x$, multiply by __?__ or divide by __?__.

Tell whether the equations are equivalent.

16. $6x = 30$ and $x = 5$

17. $-9x = 18$ and $x = 2$

Solve the equation.

18. $8x = 40$

19. $-3b = 21$

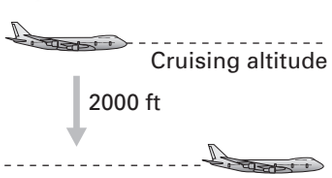
20. $12 = 2m$

21. $-34 = 2y$

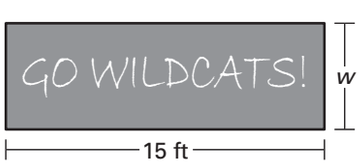
22. $\frac{1}{2}n = 13$

23. $-\frac{1}{7}a = 5$

24. **Altitude** An airplane was at a cruising altitude, then descended 2000 feet. If the airplane is at 18,000 feet now, what was the cruising altitude?



25. **Banner** You are working on a banner for Friday's pep rally. The length of the banner is 3 times the width. The length is 15 feet. What is the width?



26. **Exercising** Every week, you run for cardiovascular fitness and lift weights for strength training. You spend about $\frac{1}{3}$ of your weekly exercising time lifting weights. You exercise 12 hours a week. How much time do you spend lifting weights?