1-6 Homework

1. **Writing** Is the product $-8 \times (-5)$ *positive* or *negative*? How do you know?

2. **Open-Ended** Write a multiplication problem with a negative product. How do you know the product will be negative?

Find each product. Simplify, if necessary.

3. $-2(-3)$

4. $4(-7)$

5. $5 \cdot 10$

6. $(-5)^2$

7. -3×7

8. $-4(-6)$

9. $-3(1.2)$

10. $-\frac{1}{2}\left(\frac{2}{3}\right)$

11. $-\frac{2}{5}\left(-\frac{1}{4}\right)$

12. A scuba diver descends in the water at the rate of 40 feet per minute. What real number describes the diver's location with respect to the water level after the first 3 minutes of his dive?

13. A football team has three 15-yard penalties. What real number describes the change in yardage from these penalties?

1-6 **Homework** (continued)

Simplify each expression.

14. $\sqrt{16}$

15. $-\sqrt{25}$

16. $\pm\sqrt{100}$

17. $-\sqrt{36}$

18. $\pm\sqrt{0.64}$

19. $\pm\sqrt{\dfrac{4}{25}}$

20. **Writing** Explain the differences among $\sqrt{4}$, $-\sqrt{4}$, and $\pm\sqrt{4}$.

Find each quotient. Simplify, if necessary.

21. $-12 \div 3$

22. $-25 \div (-5)$

23. $18 \div 2$

24. $24 \div (-8)$

25. $-27 \div (-3)$

26. $\dfrac{-35}{5}$

27. $4.4 \div (-2)$

28. $-\dfrac{1}{8} \div \left(-\dfrac{1}{2}\right)$

29. $-\dfrac{3}{4} \div \dfrac{1}{5}$

30. The population of Centerville has decreased by 550 people in the last 5 years. What real number describes the average change in population per year?