Name:_____Period:__ **Chapter 1-3 Review**

Simplify each expression.

1. $2 \cdot 3^2 - 7$

2. $6 \cdot (5 - 2) - 9$

3. $6 + 8 \div 2 - 3$

4. $5 + 4 \cdot (8 - 6)^2$

5. $\left(\frac{3}{2}\right)\left(-\frac{22}{33}\right)$

6. $\frac{2 \cdot 3 + 4}{2(3 + 4)}$

7. $|12| - |-21|$

8. $-\frac{4}{3} - \frac{4}{5}$

Use <, =, or > to compare.

9. 0.45 ■ 0.54

10. −1.08 ■ −1.008

11. $\frac{3}{7}$ ■ $\frac{11}{25}$

12. 1.4 ■ $\frac{18}{11}$

13. 0.444 . . . ■ $\frac{4}{9}$

14. $\frac{4}{13}$ ■ $\frac{4}{15}$

15. $2(1 - d) - (2d + 1)$

16. $6c + 2(4c - 3)$

17. $\frac{1}{3}(12 - 6r)$

18. A pot of water has a temperature of 25°C. How many degrees should you raise the temperature to boil the water at 100°C?

19. If 36 people are at a pizza party, how many eight-piece pizzas need to be ordered so each person can get two pieces of pizza?

20. Romana is 68 in. tall and Sophie is 73 in. tall. How much taller is Sophie than Romana?

Solve each equation. If the equation is an identity, write *identity*. If it has no solution, write *no solution*.

21. $4h + 5 = 9h$

22. $2(3x - 6) = 3(2x - 4)$

23. $10z - 5 + 3z = 8 - z$

Find the integers with the given sum.

24. The sum of three consecutive integers is 126.

25. The sum of three consecutive odd integers is 189.

Find the width and length of each rectangle with the given conditions.

26. The length is 5 in. more than the width. The perimeter is 42 in.

Solve each compound inequality.

27. $37 < 3c + 7 < 43$

28. $3n - 7 > n + 1$ or $4n - 5 < 3n - 3$