2-1 Skills Practice

Writing Equations

Translate each sentence into an equation.

1. Two added to three times a number m is the same as 18.
2. Twice a increased by the cube of a equals b.
3. Seven less than the sum of p and t is as much as 6.
4. The sum of x and its square is equal to y times z.
5. Four times the sum of f and g is identical to six times g.

Translate each sentence into a formula.

6. The perimeter P of a square equals four times the length of a side ℓ.
7. The area A of a square is the length of a side ℓ squared.
8. The perimeter P of a triangle is equal to the sum of the lengths of sides a, b, and c.
9. The area A of a circle is pi times the radius r squared.

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2-2 Skills Practice

Solving One-Step Equations

Solve each equation. Check your solution.

1. $y - 7 = 8$

2. $w + 14 = -8$

3. $p - 4 = 6$

4. $-13 = 5 + x$

5. $98 = b + 34$

6. $y - 32 = -1$

7. $n + (-28) = 0$

8. $y + (-10) = 6$

9. $-1 = t + (-19)$

10. $j - (-17) = 36$

21. $18f = -216$

22. $-22 = 11v$

23. $-6d = -42$

24. $96 = -24a$

25. $\frac{c}{4} = 16$

26. $\frac{a}{16} = 9$

27. $-84 = \frac{d}{3}$

28. $-\frac{d}{7} = -13$

2-3 Skills Practice

Solving Multi-Step Equations

Solve each equation. Check your solution.

5. $5x + 3 = 23$

6. $4 = 3a - 14$

8. $6 + 5c = -29$

9. $8 - 5w = -37$

11. $\frac{n}{3} - 8 = -2$

12. $5 + \frac{x}{4} = 1$

14. $-\frac{d}{6} + 12 = -7$

15. $\frac{a}{5} - 2 = 9$

17. $\frac{3}{4}q - 7 = 8$

18. $\frac{2}{3}g + 6 = -12$

20. $\frac{4}{5}m + 2 = 6$

21. $\frac{c - 5}{4} = 3$

25. Find two consecutive integers whose sum is 35.

26. Find three consecutive integers whose sum is 36.

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2-4 Skills Practice

Solving Equations

Solve each equation. Check your solution.

3. $2m + 12 = 3m - 31$

4. $2h - 8 = h + 17$

5. $7a - 3 = 3 - 2a$

6. $4n - 12 = 12 - 4n$

7. $4x - 9 = 7x + 12$

8. $-6y - 3 = 3 - 6y$

9. $5 + 3r = 5r - 19$

10. $-9 + 8k = 7 + 4k$

11. $8q + 12 = 4(3 + 2q)$

12. $3(5j + 2) = 2(3j - 6)$