

Lesson 5 Skills Practice

Solve Multi-Step Equations

Solve each equation. Check your solution.

1. $4(2 + 3c) = 56$

2. $63 = -3(1 - 2n)$

3. $-29 = 5(2a - 1) + 2a$

4. $-g + 2(3 + g) = -4(g + 1)$

5. $7p - (3p + 4) = -2(2p - 1) + 10$

6. $-3(t + 5) + (4t + 2) = 8$

7. $\frac{1}{2}(-4 + 6x) = \frac{1}{3}x + \frac{2}{3}(x + 9)$

8. $-8 - n = -3(2n - 4)$

9. $2\left(\frac{1}{2}q + 1\right) = -3(2q - 1) + 4(2q + 1)$

10. $-4(2 - y) + 3y = 3(y - 4)$

11. HEALTH CLUB Currently, 96 members participate in the morning workout, and this number has been increasing by 2 people per week. Currently, 80 members participate in the afternoon workout, and this number has been decreasing by 3 people per week. In how many weeks will the number of people working out in the morning be double the number of people working out in the afternoon?

12. DISTANCE Two cyclists leave town at the same time on the same road going in the same direction. Cyclist *A* is going 6 miles per hour faster than cyclist *B*. After 8 hours, cyclist *A* has traveled three times the distance as cyclist *B*. Use the equation $24x = 8(x + 6)$ to find how fast cyclist *B* is traveling.