Practice B
Solving Two-Step and Multi-Step Equations

Solve each equation. Check your answers.

1. \(-4x + 7 = 11\)
2. \(17 = 5y - 3\)
3. \(-4 = 2p + 10\)

4. \(3m + 4 = 1\)
5. \(12.5 = 2g - 3.5\)
6. \(-13 = -h - 7\)

7. \(-6 = \frac{y}{5} + 4\)
8. \(\frac{7}{9} = 2n + \frac{1}{9}\)
9. \(-\frac{4}{5}t + \frac{2}{5} = \frac{2}{3}\)

10. \(-(x - 10) = 7\)
11. \(-2(b + 5) = -6\)
12. \(8 = 4(q - 2) + 4\)

13. If \(3x - 8 = -2\), find the value of \(x - 6\).

14. If \(-2(3y + 5) = -4\), find the value of \(5y\).

Answer each of the following.

15. The two angles shown form a right angle. Write and solve an equation to find the value of \(x\).

16. For her cellular phone service, Vera pays $32 a month, plus $0.75 for each minute over the allowed minutes in her plan. Vera received a bill for $47 last month. For how many minutes did she use her phone beyond the allowed minutes?
11. \( y = -3 \)  
12. \( d = -1 \)  
13. \( -8 \)  
14. \( 7x + 6 + 5x = 90 \)  
15. \( x = 7 \)  

**Practice B**  
1. \( x = -1 \)  
2. \( y = 4 \)  
3. \( p = -7 \)  
4. \( m = -1 \)  
5. \( g = 8 \)  
6. \( h = 6 \)  
7. \( y = -50 \)  
8. \( n = \frac{1}{3} \)  
9. \( t = -\frac{1}{3} \)  
10. \( x = 3 \)  
11. \( b = -2 \)  
12. \( q = 3 \)  
13. \( -4 \)  
14. \( -5 \)  
15. \( 3x - 5 + 2x = 90; 19 \)  
16. 20 minutes  

**Practice C**  
1. \( r = 3 \)  
2. \( w = -14 \)  
3. \( y = -4 \)  
4. \( f = 5 \)  
5. \( p = 10 \)  
6. \( r = 7 \)  
7. \( y = 27 \)  
8. \( h = \frac{7}{8} \)  
9. \( m = 3 \)  
10. \( v = -\frac{1}{2} \)  
11. \( b = -7 \)  
12. \( n = -\frac{5}{8} \)  
13. \( -10 \)  
14. \( -12 \)  
15. 30  
16. \( 0.75x - 18.50 = 24.25, 57 \)  

**Review for Mastery**  
1. 4  
2. 60  
3. \( \frac{5}{3} \)  
4. 5  
5. \( \frac{5}{4} \)  
6. \( -1 \)  
7. \( \frac{25}{2} \)  

**Challenge**  
1. 4 inches  
2. 8 inches  
3. 1 inch  
4. 9 inches  

11. 15 inches  
12. 7 inches  
13. 3 inches  
14. 7 inches  
15. 6 inches  
16. 11 inches  
17. 15 inches  
18. 4 inches  
19. 5 sides  
20. 12 sides  
21. 7 sides  
22. 18 sides  

**Problem Solving**  
1. \( 39.95 + 0.99d = 55.79; 16 \)  
2. \( 12.6 = 4p + 1; 2.9 \)  
3. 9 years old  
4. 10 weeks  
5. D  
6. F  
7. B  

**Reading Strategies**  
1. like terms  
2. subtraction  
3. Subtract 3 from both sides, then multiply by 5.  
4. \( n = 5 \)  
5. \( d = 7 \)  
6. \( j = -2 \)  

**Lesson 2–4**  

**Practice A**  
1. \( 2a; 3; 10; 5 \)  
2. \( 4r; 9; -4 \)  
3. \( -5b; 30; 5b; 3b; 10 \)  
4. \( c = -19 \)  
5. all real numbers  
6. no solution  
7. a. 3 hours  
8. a. 2 hours  
9. b. $75° F  
10. b. $12  

**Practice B**  
1. \( d = -25 \)  
2. \( n = 1 \)  
3. \( p = 4 \)  
4. \( t = 12 \)  
5. \( x = \frac{1}{2} \)  
6. \( r = -2 \)  
7. \( y = -18 \)  
8. all real numbers  
9. \( m = -3 \)  
10. no solution  
11. \( b = \frac{3}{2} \)  
12. \( r = -3 \)  
13. a. 8 years  
14. a. 6 months  
15. b. $52,000  
16. b. 128 stamps  

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