Solve:

1. \(5x + 4 = x - 7\)
   - [A] \(\frac{11}{4}\)
   - [B] \(-\frac{4}{11}\)
   - [C] \(\frac{9}{5}\)
   - [D] \(-\frac{11}{4}\)

2. \(6x - 5 = x + 3\)
   - [A] \(\frac{1}{6}\)
   - [B] \(-\frac{8}{5}\)
   - [C] \(\frac{5}{8}\)
   - [D] \(\frac{8}{5}\)

3. \(4x + 7 = x - 2\)
   - [A] 3
   - [B] \(-\frac{1}{3}\)
   - [C] \(\frac{11}{4}\)
   - [D] -3

4. \(6x + 1 = x - 5\)
   - [A] \(-\frac{6}{5}\)
   - [B] \(\frac{6}{5}\)
   - [C] \(\frac{7}{6}\)
   - [D] \(-\frac{5}{6}\)

5. \(4x + 4 = x - 3\)
   - [A] 2
   - [B] \(\frac{7}{3}\)
   - [C] \(-\frac{7}{3}\)
   - [D] \(-\frac{3}{7}\)

6. \(x + 2 = -2x - 8\)

7. \(x - 8 = -3x + 5\)

8. \(x + 5 = -5x - 5\)

9. \(x + 1 = -x + 9\)

10. \(x - 1 = -2x + 2\)

11. \(x - 2 = -5x + 1\)

12. \(x + 4 = -4x + 9\)
Solve:

13. \[ x - 3 = -4x - 7 \]

14. Compare the quantity in Column A with the quantity in Column B.

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>(2(x - 3) = 6x)</td>
<td>(3x + 2 = 5x + 6)</td>
</tr>
</tbody>
</table>

[A] The quantity in Column A is greater.
[B] The quantity in Column B is greater.
[C] The quantities are equal.
[D] The relationship cannot be determined on the basis of the information supplied.

Solve:

15. \[ 5x - 20 = x + 4(5 + x) \]

16. \[ 6x + 10 = x + 5(3 + x) \]

17. \[ 4x + 9 = x + 3(3 + x) \]

18. Which equation has no solution?

[A] \(-2x + 3 = 4x + 4 - 6x\)
[B] \(3y + 3 = 7y - 4y + 3\)
[C] \(-2x + 3 = 4x + 3 - 6x\)
[D] \(6x + 25 = x + 5(5 + x)\)

19. Which equation has no solution?

[A] \(6x + 25 = x + 5(5 + x)\)
[B] \(4y + 3 = 9y - 5y\)
[C] \(-x + 3 = 5x + 3 - 6x\)
[D] \(4y + 3 = 9y - 5y + 3\)

20. Which equation has no solution?

[A] \(9y + 9 = 11y - 2y + 9\)
[B] \(7x + 30 = x + 6(5 + x)\)
[C] \(-5x + 9 = 2x + 9 - 7x\)
[D] \(7x - 6 = x + 6(5 + x)\)
Algebra I Practice A.REI.B.3: Solving Linear Equations 3

1. D
2. D
3. D
4. A
5. C
6. \(-\frac{10}{3}\)
7. \(\frac{13}{4}\)
8. \(-\frac{5}{3}\)
9. 4
10. 1
11. \(\frac{1}{2}\)
12. 1
13. \(-\frac{4}{5}\)
14. A
15. no solution
16. no solution
17. identity
18. A
19. B
20. D