

3-5 Skills Practice**Solving Equations with the Variable on Each Side**

(Ex) $2(8x+2) = 3(2x-7)$

* $16x + 4 = 6x - 21$

$10x + 4 = -21$

$\frac{10x}{10} = \frac{-25}{10}$

$x = \frac{-25}{10}$

$x = -\frac{5}{2}$

CK $2\left[8\left(-\frac{5}{2}\right)+2\right] \stackrel{?}{=} 3\left[2\left(-\frac{5}{2}\right)-7\right]$

$2\left[-\frac{40}{2}+2\right] \stackrel{?}{=} 3\left[-\frac{10}{2}-7\right]$

$2[-20+2] \stackrel{?}{=} 3[-5-7]$

$2[-18] \stackrel{?}{=} 3[-12]$

$-36 \stackrel{?}{=} -36 \checkmark$

Note: After combining like terms on each side of the equation, you will have two (2) choices for how to get your variable terms together.

Solve each equation. Then 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. $3(5j + 2) = 2(3j - 6)$

13. $6(-3v + 1) = 5(-2v - 2)$

14. $-7(2b - 4) = 5(-2b + 6)$

All work on looseleaf.

Checks are required.