

2-4 Solve Equations with Variables on Both Sides

Solve:

1. $-3m + 11 = 2m - 14$

$+3m \quad +3m$

$11 = 5m - 14$

$+14 \quad +14$

$\frac{25}{5} = \frac{5m}{5}$

$5 = m$

2. $4 - (x + 2) = -3x + 6$

$4 - x - 2 = -3x + 6$

$-x + 2 = -3x + 6$

$+3x \quad +3x$

$2x + 2 = 6$

$-2 \quad -2$

$\frac{2x}{2} = \frac{4}{2}$

$x = 2$

3. $\frac{3}{4}t - 2 = 5 - \frac{1}{4}t$

$+\frac{1}{4}t \quad +\frac{1}{4}t$

$t - 2 = 5$

$+2 \quad +2$

$t = 7$

4. $6(d - 1) + 9 = 8(d + 3) - 3$

$6d - 6 + 9 = 8d + 24 - 3$

$6d + 3 = 8d + 21$

$-6d \quad -6d$

$3 = 2d + 21$

$-21 \quad -21$

$\frac{-18}{2} = \frac{2d}{2}$

$d = -9$

5. $-8c - 18 = -3(c - 4)$

$-8c - 18 = -3c + 12$

$+8c \quad +8c$

$-18 = 5c + 12$

$-12 \quad -12$

$\frac{-30}{5} = \frac{5c}{5}$

$-6 = c$