

**Solve each equation. Check your answer on your calculator.**

1.  $5 - 13 + 3a = 13$  Check

2.  $-4(x + 6) = -40$  Check

3.  $3x - 8 = 7x + 4$  Check

4.  $7c - 6 - 3c = 6$  Check

5.  $d + 5(d - 1) = 7$  Check

6.  $6(2x - 5) = 2(2x + 1)$  Check

Solve each equation. Check your answer on your calculator.

1.  $5 - 13 + 3a = 13$

Check

$$\begin{array}{r} \underline{-8 + 3a = 13} \\ + 8 \end{array}$$

F:  $5 - 13 + 3a = 13$

S:  $5 - 13 + 3(7) = 13$

$$\frac{3a = 21}{3} \quad \boxed{a = 7}$$

S:  $-8 + 21 = 13$

$$\underline{13 = 13} \checkmark$$

2.  $-4(x+6) = -40$

Check

~~$$\begin{array}{r} -4x - 24 = -40 \\ + 24 \quad + 24 \\ \hline -4x = -16 \\ \underline{-4} \quad \underline{-4} \\ \boxed{x = 4} \end{array}$$~~

F:  $-4(x+6) = -40$

S:  $-4(4+6) = -40$

S:  $-4(10) = -40$

$$-40 = -40 \checkmark$$

3.  $3x - 8 = 7x + 4$

Check

~~$$\begin{array}{r} -3x \quad -3x \\ \underline{-8 = 4x + 4} \\ -4 \quad -4 \\ \hline -12 = 4x \\ \underline{4} \quad \underline{4} \\ \boxed{-3 = x} \end{array}$$~~

F:  $3x - 8 = 7x + 4$

S:  $3(-3) - 8 = 7(-3) + 4$

S:  $-9 - 8 = -21 + 4$

$$-17 = -17 \checkmark$$

$$4. \quad \boxed{7c} - 6 - \boxed{3c} = 6$$

$$\begin{array}{r|l} 4c - 6 & = 6 \\ +6 & +6 \\ \hline 4c & = 12 \\ \frac{4c}{4} & = \frac{12}{4} \\ \hline \boxed{c = 3} & \end{array}$$

Check

$$\begin{aligned} F: & 7c - 6 - 3c = 6 \\ S: & 7(3) - 6 - 3(3) = 6 \\ S: & \underbrace{21 - 6 - 9} = 6 \\ & \underbrace{15 - 9} = 6 \\ & \underbrace{6} = 6 \checkmark \end{aligned}$$

$$5. \quad d + 5(d - 1) = 7$$

$$\begin{array}{r|l} d + 5d - 5 & = 7 \\ 6d - 5 & = 7 \\ +5 & +5 \\ \hline 6d & = 12 \\ \frac{6d}{6} & = \frac{12}{6} \\ \hline \boxed{x = 2} & \end{array}$$

Check

$$\begin{aligned} F: & d + 5(d - 1) = 7 \\ S: & 2 + 5(2 - 1) = 7 \\ & 2 + 5(1) = 7 \\ S: & 2 + 5 = 7 \\ & 7 = 7 \checkmark \end{aligned}$$

$$6. \quad 6(2x - 5) = 2(2x + 1)$$

$$\begin{array}{r|l} 12x - 30 & = 4x + 2 \\ -4x & -4x \\ \hline 8x - 30 & = 2 \\ +30 & +30 \\ \hline 8x & = 32 \\ \frac{8x}{8} & = \frac{32}{8} \\ \hline \boxed{x = 4} & \end{array}$$

Check

$$\begin{aligned} F: & 6(2x - 5) = 2(2x + 1) \\ S: & 6(2 \cdot 4 - 5) = 2(2 \cdot 4 + 1) \\ S: & 6(3) = 2(9) \\ & 18 = 18 \checkmark \end{aligned}$$