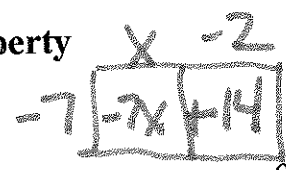


Solving Using the Distributive Property



Solve and then check your solution:

check

check

S 1. $5(n+1) - 3n = 9$
 $5n + 5 - 3n = 9$
 $\rightarrow 2n + 5 = 9$
 $\quad \quad \quad -5 \quad -5$
 $\hline 2n = 4$
 $\quad \quad \quad \div 2 \quad \div 2$
 $\hline n = 2$

$5(n+1) - 3n = 9$
 $5(2+1) - 3(2) = 9$
 $5(3) - 6 = 9$
 $9 = 9 \checkmark$

S 2. $-7(x-2) = -14$
 $\rightarrow -7x + 14 = -14$
 $\quad \quad \quad -14 \quad -14$
 $\hline -7x = -28$
 $\quad \quad \quad \div -7 \quad \div -7$
 $\hline x = 4$

$-7(x-2) = -14$
 $-7(4-2) = -14$
 $-7(2) = -14$
 $-14 = -14 \checkmark$

S 3. $8 = 8 + 5(y-1)$
 $8 = 8 + 5y - 5$
 $\rightarrow 8 = 3 + 5y$
 $\quad \quad \quad -3 \quad -3$
 $\hline 5 = 5y$
 $\quad \quad \quad \div 5 \quad \div 5$
 $\hline 1 = y$

$8 = 8 + 5(y-1)$
 $8 = 8 + 5(1-1)$
 $8 = 8 + 5(0)$
 $8 = 8 \checkmark$

S 4. $2(x-1) - 4(x-1) = -10$
 $2x - 2 - 4x + 4 = -10$
 $\rightarrow -2x + 2 = -10$
 $\quad \quad \quad -2 \quad -2$
 $\hline -2x = -12$
 $\quad \quad \quad \div -2 \quad \div -2$
 $\hline x = 6$

$2x - 2 - 4x + 4 = -10$
 $-2x + 2 = -10$
 $-2x = -12$
 $x = 6$

S 5. $\frac{1}{2}(2x+4) = 8$
 $\rightarrow x + 2 = 8$
 $\quad \quad \quad -2 \quad -2$
 $\hline x = 6$

$\frac{1}{2}(2x+4) = 8$
 $\frac{1}{2}(2(6)+4) = 8$
 $\frac{1}{2}(12+4) = 8$
 $\frac{1}{2}(16) = 8$
 $8 = 8 \checkmark$

S 6. $3x - (x-4) = 2$
 $3x - x + 4 = 2$
 $\rightarrow 2x + 4 = 2$
 $\quad \quad \quad -4 \quad -4$
 $\hline 2x = -2$
 $\quad \quad \quad \div 2 \quad \div 2$
 $\hline x = -1$

$3x - (x-4) = 2$
 $3(-1) - (-1-4) = 2$
 $-3 - (-5) = 2$
 $-3 + 5 = 2$
 $2 = 2 \checkmark$

#4 check
 $2(6-1) - 4(6-1) = -10$
 $2(5) - 4(5) = -10$
 $10 - 20 = -10$
 $-10 = -10 \checkmark$