

8-28-13
1st Geo

Solving for a Variable

$$\begin{aligned} \textcircled{1} \quad 6n - 1 &= 5n + 7 \\ -5n & \quad -5n \\ \hline n - 1 &= 7 \\ +1 \quad +1 & \\ \hline n &= 8 \end{aligned}$$

$$\begin{aligned} \textcircled{2} \quad 2(3n+1) &= 4n+10 \\ 6n+2 &= 4n+10 \\ -4n & \quad -4n \\ \hline 2n+2 &= 10 \\ -2 & \quad -2 \\ \hline 2 \cdot n &= 8 \\ \frac{2 \cdot n}{2} &= \frac{8}{2} \\ n &= 4 \end{aligned}$$

$$\begin{aligned} \textcircled{3} \quad n+n+3+1 &= n+1+1+1+10 \\ 2n+4 &= n+13 \\ -n & \quad -n \\ \hline n+4 &= 13 \\ -4 \quad -4 & \\ \hline n &= 9 \end{aligned}$$

$$\begin{aligned} \textcircled{4} \quad 2n+2n+2n &= 3+4+11 \\ 6n &= 18 \\ \frac{6n}{6} &= \frac{18}{6} \\ n &= 3 \end{aligned}$$

$$\begin{aligned}
 \textcircled{5} \quad & 7(5n-1) = 3n+2n+1+22 \\
 & 35n-7 = 3n+2n+1+22 \\
 & 35n-7 = \textcircled{5n} + 23 \\
 & \begin{array}{r} 35n-7 \\ -5n \\ \hline 30n-7 = 23 \\ \quad +7 \quad +7 \\ \hline 30n = 30 \\ \quad \underline{30} \quad \underline{30} \\ n = 1 \end{array}
 \end{aligned}$$

$$\begin{aligned}
 \textcircled{6} \quad & 3(2n-1) = 2(2n+10) \\
 & 6n-3 = \textcircled{4n} + 20 \\
 & \begin{array}{r} 6n-3 \\ -4n \\ \hline 2n-3 = 20 \\ \quad \textcircled{+3} \quad +3 \\ \hline 2n = 23 \\ \quad \underline{2} \quad \underline{2} \\ n = 11\frac{1}{2} \end{array}
 \end{aligned}$$