

3-3 D2 Mr.Lyons.com

Tuesday, 6 October 2026

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$$\begin{aligned}(1) \quad 159 &= 3x + 6(6x - 6) \\ 159 &= 3x + 36x - 36 \\ 159 &= 39x - 36 \\ 195 &= 39x \\ 5 &= x\end{aligned}$$

$$\begin{aligned}(2) \quad -86 &= -5x - 3(-2x + 26) \\ -86 &= -5x + 6x - 78 \\ -86 &= x - 78 \\ -8 &= x \\ -8 &= x\end{aligned}$$

$$\begin{aligned}(3) \quad -11 + \frac{x}{5} &= -28 \\ \frac{x}{5} &= -17 \\ x &= -85\end{aligned}$$

$$\begin{aligned}(4) \quad 7(7x - 24) &= -756 \\ 7x - 24 &= -108 \\ 7x &= -84 \\ x &= -12\end{aligned}$$

$$\begin{aligned}(5) \quad -8x + 135 &= 12x - 225 \\ 135 &= 20x - 225 \\ 360 &= 20x \\ 18 &= x\end{aligned}$$

$$\begin{aligned}(6) \quad 606 &= -6(9x - 20) \\ -101 &= 9x - 20 \\ -81 &= 9x \\ -9 &= x\end{aligned}$$

$$\begin{aligned}(7) \quad -173 &= 61 + 9x \\ -234 &= 9x \\ -26 &= x\end{aligned}$$

$$\begin{aligned}(8) \quad \frac{-7x - 3}{10} &= 6 \\ -7x - 3 &= 60 \\ -7x &= 63 \\ x &= -9\end{aligned}$$

$$\begin{aligned}(9) \quad -246 &= 4x + 5(-7x - 12) \\ -246 &= 4x - 35x - 60 \\ -246 &= -31x - 60 \\ -186 &= -31x \\ 6 &= x\end{aligned}$$

$$\begin{aligned}(10) \quad -3x - 5(-x - 19) &= 83 \\ -3x + 5x + 95 &= 83 \\ 2x + 95 &= 83 \\ 2x &= -12 \\ x &= -6\end{aligned}$$

$$\begin{aligned}
 (1) \quad 72 &= 27 - 5x \\
 45 &= -5x \\
 -9 &= x
 \end{aligned}$$

$$\begin{aligned}
 (2) \quad -195 - 9x &= 69 + 3x \\
 -195 - 12x &= 69 \\
 -12x &= 264 \\
 x &= -22
 \end{aligned}$$

$$\begin{aligned}
 (3) \quad 5x - 6(-2x + 15) &= -294 \\
 5x + 12x - 90 &= -294 \\
 17x - 90 &= -294 \\
 17x &= -204 \\
 x &= -12
 \end{aligned}$$

$$\begin{aligned}
 (4) \quad 6(-10x - 8) &= -528 \\
 -10x - 8 &= -88 \\
 -10x &= -80 \\
 x &= 8
 \end{aligned}$$

$$\begin{aligned}
 (5) \quad -13 &= \frac{6x - 12}{6} \\
 -78 &= 6x - 12 \\
 -66 &= 6x \\
 -11 &= x
 \end{aligned}$$

$$\begin{aligned}
 (6) \quad -82 - 17x &= 105 \\
 -17x &= 187 \\
 x &= -11
 \end{aligned}$$

$$\begin{aligned}
 (7) \quad 59 - 10x &= -71 \\
 -10x &= -130 \\
 x &= 13
 \end{aligned}$$

$$\begin{aligned}
 (8) \quad -5x - 41 &= -161 \\
 -5x &= -120 \\
 x &= 24
 \end{aligned}$$

$$\begin{aligned}
 (9) \quad 12x - 20 &= 10x + 46 \\
 2x - 20 &= 46 \\
 2x &= 66 \\
 x &= 33
 \end{aligned}$$

$$\begin{aligned}
 (10) \quad \frac{-9x + 27}{8} &= 18 \\
 -9x + 27 &= 144 \\
 -9x &= 117 \\
 x &= -13
 \end{aligned}$$