

Answers

Equations, Equations, and more Equations...

Solve each equation for the given variable. Please circle, rectangle, or triangle your answer.

1. $4x - 7 = 37$

2. $3x = 6 - 9$

3. $8 - 9y = 35$

4. $7x - 12 = 2$

$$\begin{array}{r} 8 - 12x = 32 \\ -8 \quad \quad -8 \\ \hline -12x = 24 \\ -12 \quad -12 \\ \hline X = -2 \end{array}$$

6. $0 = 25x + 75$

7. $4e + 16 = -12$

8. $3n - 9 = 9$

9. $3x + 12 + 5 = 35$

10. $9x - 3 = 24$

$$\begin{array}{r} 9x - 3 = 24 \\ +3 \quad +3 \\ \hline 9x = 27 \\ \frac{9}{9} \quad \frac{27}{9} \\ \hline X = 3 \end{array}$$

11. $5 - \frac{1}{2}x = -9$

12. $12 = \frac{2}{3}x - 2$

13. $13x + 50 = -54$

14. $\frac{x}{3} - 8 = -12$

15. $3 - \frac{1}{5}x = -7$

$$\begin{array}{r} 3 - \frac{1}{5}x = -7 \\ -3 \quad \quad -3 \\ \hline (-5) \left(-\frac{1}{5}x \right) = (-10) \left(-5 \right) \\ \hline X = 50 \end{array}$$

16. $7 - \frac{1}{9}k = 32$

17. $\frac{2x}{5} + 3 = 9$

18. $7 = -4m - 5$

$$19. \frac{1}{4}x + 2 = 11$$

$$20. 8 - \frac{1}{2}y = -6$$

$$21. 5n - 8 = -23$$

$$\begin{array}{r} -8 \quad -8 \\ (-2) - \frac{1}{2}y = (-14)(-2) \\ y = 28 \end{array}$$

$$22. 6x - 2 = 22$$

$$23. 5t - 8 = -18$$

$$24. 6x - 5 = -41$$

$$25. 4(3y - 1) = 5y - 11$$

$$26. -7a = -12a + 65$$

$$27. 4(x + 2) = 6x + 10$$

$$\begin{array}{r} 12y - 4 = 5y - 11 \\ +4 \quad +4 \\ \hline 12y = 5y - 7 \\ -5y \quad -5y \\ \hline 7y = -7 \\ \frac{7y}{7} = \frac{-7}{7} \\ y = (-1) \end{array}$$

$$28. 5x + 2(1 - x) = 2(2x - 1)$$

$$29. 3(2 + v) = 5v + 16$$

$$30. \frac{x}{2} + 5 = x$$

$$\begin{array}{r} (2)\left(\frac{x}{2} + 5\right) = x(2) \\ x + 10 = 2x \\ -x \quad -x \\ \hline 10 = x \end{array}$$