

## 6.2 SOLVING TYPE II EQUATIONS

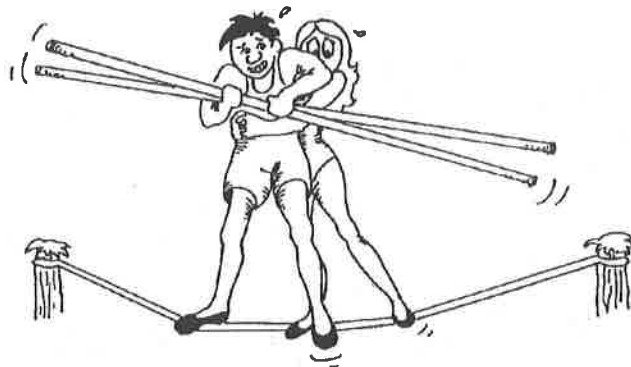
A Type II equation will require you to do two opposite or inverse operations to solve for the variable (letter). Always do the opposite of any addition or subtraction first, then proceed to do the inverse operation of any multiplication or division, as shown in the examples below.

EXAMPLE #1

$$\begin{aligned} 5x - 9 &= 8 \\ 5x &= 8 + 9 \\ 5x &= 17 \\ \frac{5x}{5} &= \frac{17}{5} \\ x &= 3.4 \end{aligned}$$

EXAMPLE #2

$$\begin{aligned} \frac{x}{5} + 7 &= 9.3 \\ \frac{x}{5} &= 9.3 - 7 \\ \frac{x}{5} &= \frac{2.3}{1} \\ x &= 11.5 \end{aligned}$$



A. Solve the following.

$$\begin{aligned} 1. \quad 3x + 2 &= 14 \\ &4 \end{aligned}$$

$$\begin{aligned} 2. \quad \frac{x}{-3} + 4 &= 10 \\ &-18 \end{aligned}$$

$$\begin{aligned} 3. \quad x + 3 &= 3 \frac{4}{5} \\ &\frac{4}{5} \end{aligned}$$

$$\begin{aligned} 4. \quad \frac{1}{2}x - 8 &= 16 \\ &48 \end{aligned}$$

$$\begin{aligned} 5. \quad 5x - 0.9 &= 2 \\ &0.58 \end{aligned}$$

$$\begin{aligned} 6. \quad \frac{1}{2}x + \frac{3}{4} &= \frac{7}{8} \\ &\frac{1}{4} \end{aligned}$$

$$\begin{aligned} 7. \quad 1.2x - 1.2 &= 8.4 \\ &8 \end{aligned}$$

$$\begin{aligned} 8. \quad \frac{2}{7}x - 5 &= 15 \\ &70 \end{aligned}$$

$$\begin{aligned} 9. \quad \frac{x}{7} - 8 &= 10 \\ &126 \end{aligned}$$

$$\begin{aligned} 10. \quad 4x + 8 &= 4 \\ &-1 \end{aligned}$$

$$\begin{aligned} 11. \quad \frac{4}{5}x &= 60 \\ &75 \end{aligned}$$

$$\begin{aligned} 12. \quad 0.2x + 0.3 &= 1.4 \\ &5.5 \end{aligned}$$

$$\begin{aligned} 13. \quad \frac{x}{5} + 3 &= -8 \\ &-55 \end{aligned}$$

$$\begin{aligned} 14. \quad 12 &= \frac{x}{8} + 5 \\ &56 \end{aligned}$$

$$\begin{aligned} 15. \quad \frac{x}{8} + 5 &= -12 \\ &-136 \end{aligned}$$

$$\begin{aligned} 16. \quad -18x + 5 &= 13.2 \\ &-0.45 \end{aligned}$$

$$\begin{aligned} 17. \quad 5x - 3 &= 18 \\ &4.2 \end{aligned}$$

$$\begin{aligned} 18. \quad \frac{x}{7} - 8 &= -10 \\ &-14 \end{aligned}$$

$$\begin{aligned} 19. \quad 14 &= 3x - 5 \\ &6\frac{1}{3} \end{aligned}$$

$$\begin{aligned} 20. \quad \frac{x}{5} + 18 &= 5 \\ &-65 \end{aligned}$$

$$\begin{aligned} 21. \quad 4x + 7 &= 0.07 \\ &-1.7325 \end{aligned}$$

$$\begin{aligned} 22. \quad \frac{2}{3}x - 8 &= 8 \\ &24 \end{aligned}$$

$$\begin{aligned} 23. \quad -13x + 3 &= 6 \\ &-\frac{3}{13} \end{aligned}$$

$$\begin{aligned} 24. \quad -4.2x + 4 &= -8 \\ &2.857 \end{aligned}$$