

Name:

After completing the worksheet, check your solutions against the solutions given on my website

### Algebra Worksheet 1

Solve the following equations for the unknown value. Remember the golden rule of algebra: Do the same thing to both sides of the equation! Please **show your steps** and align your equals signs vertically. Your solution should have a slight **V** shape to it. Proceed in alphabetical order.

$$\begin{array}{l} \text{a) } a + 5 = 8 \\ -5 \quad -5 \\ \hline a = 3 \end{array}$$

$$\begin{array}{l} \text{e) } 6 - e = -1 \\ -6 \quad -6 \\ \hline -e = -7 \\ -1e = -7 \\ \div(-1) \quad \div(-1) \\ \hline e = 7 \end{array}$$

$$\text{i) } 8 - 3i = 9$$

$$\text{b) } b + 3 = 5$$

$$\text{f) } 7 + f = 4$$

$$\text{j) } 10 + 5j = -5$$

$$\text{c) } c + 6 = -4$$

$$\text{g) } 9 - g = -7$$

$$\text{k) } 6k + 3 = -9$$

$$\text{d) } d - 5 = 3$$

$$\text{h) } 2h + 3 = -5$$

$$\text{l) } 2l = l + 5$$

$$\begin{aligned} \text{m)} \quad 3m &= m - 4 \\ -m &\quad -m \\ 2m &= -4 \\ \div 2 &\quad \div 2 \\ m &= -2 \end{aligned}$$

$$\text{q)} \quad 8q + 1 = 6q + 9$$

$$\text{u)} \quad -4 + 2u = 3u - 8$$

$$\text{n)} \quad n + 5 = 3n - 4$$

$$\text{r)} \quad 3r + 6 = 5r - 7$$

$$\text{v)} \quad 2(v + 3) = 4v + 3$$

$$\text{o)} \quad o - 6 = 5o + 8$$

$$\text{s)} \quad 8 - 3s = -3 + 4s$$

$$\text{w)} \quad -2(v + 1) = 3v + 5$$

$$\text{p)} \quad 10 - 2p = 3 + 2p$$

$$\text{t)} \quad 4 + 2t = 10 - 3t$$

$$\text{x)} \quad 4(3 - x) = 3 + x$$

Now check your answers on my website! They are posted under the November 22nd heading.