

Basic Two-step Equations with Unknown on One Side

Date:

Name:

Through your working, show how you are keeping the equation balanced as you solve for the variable. Round to 1 d.p. if necessary.

<http://www.learnersgrid.com>**[1]**

$$8.4m + 17 = 75.8$$

[2]

$$\frac{f}{8} + 150.9 = 154.9$$

[3]

$$76.4 = 6.6m + 17$$

[4]

$$5m - 12 = 26.5$$

[5]

$$7m - 11 = 86.3$$

[6]

$$198.4 = 9m - 23$$

[7]

$$-6.4m + 23 = 10.2$$

[8]

$$\frac{w}{7} - 21 = 49.13$$

[9]

$$3 = -4.5m + 12$$

[10]

$$9m - 8.9 = -89.9$$

[11]

$$9m - 9 = -185.4$$

[12]

$$269.6 = 12m - 10$$

Through your working, show how you are keeping the equation balanced as you solve for the variable. Round to 1 d.p. if necessary.

<http://www.learnersgrid.com>

$$\begin{aligned} [1] \quad 8.4m + 17 &= 75.8 \\ -17 \quad -17 \end{aligned}$$

$$\begin{aligned} 8.4m &= 58.8 \\ \div 8.4 \quad \div 8.4 \end{aligned}$$

$$m = 7.0$$

$$\begin{aligned} [2] \quad \frac{f}{8} + 150.9 &= 154.9 \\ -150.9 \quad -150.9 \end{aligned}$$

$$\begin{aligned} \frac{f}{8} &= 4 \\ \times 8 \quad \times 8 \end{aligned}$$

$$f = 32$$

$$\begin{aligned} [3] \quad 76.4 &= 6.6m + 17 \\ -17 \quad -17 \end{aligned}$$

$$\begin{aligned} 59.4 &= 6.6m \\ \div 6.6 \quad \div 6.6 \end{aligned}$$

$$9.0 = m$$

$$m = 9.0$$

$$\begin{aligned} [4] \quad 5m - 12 &= 26.5 \\ +12 \quad +12 \end{aligned}$$

$$\begin{aligned} 5m &= 38.5 \\ \div 5 \quad \div 5 \end{aligned}$$

$$m = 7.7$$

$$\begin{aligned} [5] \quad 7m - 11 &= 86.3 \\ +11 \quad +11 \end{aligned}$$

$$\begin{aligned} 7m &= 97.3 \\ \div 7 \quad \div 7 \end{aligned}$$

$$m = 13.9$$

$$\begin{aligned} [6] \quad 198.4 &= 9m - 23 \\ +23 \quad +23 \end{aligned}$$

$$\begin{aligned} 221.4 &= 9m \\ \div 9 \quad \div 9 \end{aligned}$$

$$24.6 = m$$

$$m = 24.6$$

$$[7] \quad -6.4m + 23 = 10.2$$

$$\quad \quad \quad -23 \quad \quad -23$$

$$-6.4m = -12.8$$

$$\div -6.4 \quad \quad \div -6.4$$

$$m = 2.0$$

$$[8] \quad \frac{w}{7} - 21 = 49.13$$

$$\quad \quad \quad +21 \quad \quad +21$$

$$\frac{w}{7} = 70.129$$

$$\quad \quad \times 7 \quad \quad \times 7$$

$$w = 490.9$$

$$[9] \quad 3 = -4.5m + 12$$

$$\quad \quad -12 \quad \quad -12$$

$$-9 = -4.5m$$

$$\div -4.5 \quad \quad \div -4.5$$

$$2.0 = m$$

$$m = 2.0$$

$$[10] \quad 9m - 8.9 = -89.9$$

$$\quad \quad +8.9 \quad \quad +8.9$$

$$9m = -81$$

$$\div 9 \quad \quad \div 9$$

$$m = -9.0$$

$$[11] \quad 9m - 9 = -185.4$$

$$\quad \quad +9 \quad \quad +9$$

$$9m = -176.4$$

$$\div 9 \quad \quad \div 9$$

$$m = -19.6$$

$$[12] \quad 269.6 = 12m - 10$$

$$\quad \quad +10 \quad \quad +10$$

$$279.6 = 12m$$

$$\div 12 \quad \quad \div 12$$

$$23.3 = m$$

$$m = 9.0$$