

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]**

$$12.4m + 23 = 134.6$$

[2]

$$\frac{f}{3} + 220.9 = 226.9$$

[3]

$$27.5 = 3.5m + 17$$

[4]

$$5m - 17 = 39.5$$

[5]

$$6m - 21 = 66.6$$

[6]

$$181.8 = 12m - 21$$

[7]

$$-12.4m + 16 = -95.6$$

[8]

$$\frac{y}{7} - 15 = 15.04$$

[9]

$$-5.5 = -3.5m + 19$$

[10]

$$8m - 13.4 = -125.4$$

[11]

$$6m - 19 = -123.4$$

[12]

$$116.6 = 12m - 19$$

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

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$$\begin{aligned} [1] \quad 12.4m + 23 &= 134.6 \\ - 23 & \quad - 23 \end{aligned}$$

$$\begin{aligned} 12.4m &= 111.6 \\ \div 12.4 & \quad \div 12.4 \end{aligned}$$

$$m = 9.0$$

$$\begin{aligned} [2] \quad \frac{f}{3} + 220.9 &= 226.9 \\ - 220.9 & \quad - 220.9 \end{aligned}$$

$$\begin{aligned} \frac{f}{3} &= 6 \\ \times 3 & \quad \times 3 \end{aligned}$$

$$f = 18$$

$$\begin{aligned} [3] \quad 27.5 &= 3.5m + 17 \\ - 17 & \quad - 17 \end{aligned}$$

$$\begin{aligned} 10.5 &= 3.5m \\ \div 3.5 & \quad \div 3.5 \end{aligned}$$

$$3.0 = m$$

$$m = 3.0$$

$$\begin{aligned} [4] \quad 5m - 17 &= 39.5 \\ + 17 & \quad + 17 \end{aligned}$$

$$\begin{aligned} 5m &= 56.5 \\ \div 5 & \quad \div 5 \end{aligned}$$

$$m = 11.3$$

$$\begin{aligned} [5] \quad 6m - 21 &= 66.6 \\ + 21 & \quad + 21 \end{aligned}$$

$$\begin{aligned} 6m &= 87.6 \\ \div 6 & \quad \div 6 \end{aligned}$$

$$m = 14.6$$

$$\begin{aligned} [6] \quad 181.8 &= 12m - 21 \\ + 21 & \quad + 21 \end{aligned}$$

$$\begin{aligned} 202.8 &= 12m \\ \div 12 & \quad \div 12 \end{aligned}$$

$$16.9 = m$$

$$m = 16.9$$

$$[7] \quad -12.4m + 16 = -95.6$$

$$\quad \quad \quad -16 \quad \quad -16$$

$$-12.4m = -111.6$$

$$\quad \quad \quad \div -12.4 \quad \quad \div -12.4$$

$$m = 9.0$$

$$[8] \quad \frac{y}{7} - 15 = 15.04$$

$$\quad \quad \quad \quad \quad +15 \quad \quad +15$$

$$\frac{y}{7} = 30.043$$

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

$$y = 210.3$$

$$[9] \quad -5.5 = -3.5m + 19$$

$$\quad \quad \quad -19 \quad \quad \quad -19$$

$$-25 = -3.5m$$

$$\quad \quad \quad \div -3.5 \quad \quad \div -3.5$$

$$7.0 = m$$

$$m = 7.0$$

$$[10] \quad 8m - 13.4 = -125.4$$

$$\quad \quad \quad +13.4 \quad \quad \quad +13.4$$

$$8m = -112$$

$$\quad \quad \quad \div 8 \quad \quad \quad \div 8$$

$$m = -14.0$$

$$[11] \quad 6m - 19 = -123.4$$

$$\quad \quad \quad +19 \quad \quad \quad +19$$

$$6m = -104.4$$

$$\quad \quad \quad \div 6 \quad \quad \quad \div 6$$

$$m = -17.4$$

$$[12] \quad 116.6 = 12m - 19$$

$$\quad \quad \quad +19 \quad \quad \quad +19$$

$$135.6 = 12m$$

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

$$11.3 = m$$

$$m = 9.0$$