

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]**

$$9m + 10 = 55$$

[2]

$$\frac{g}{6} + 8 = 14$$

[3]

$$58 = 9m + 22$$

[4]

$$3m - 14 = 7$$

[5]

$$9m - 22 = 194$$

[6]

$$267 = 12m - 21$$

[7]

$$-4m + 11 = -29$$

[8]

$$\frac{n}{5} - 9 = -1$$

[9]

$$-71 = -8m + 9$$

[10]

$$10m - 21 = -61$$

[11]

$$10m - 19 = -149$$

[12]

$$135 = 9m - 9$$

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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$$\begin{aligned} [1] \quad 9m + 10 &= 55 \\ -10 \quad -10 & \\ 9m &= 45 \\ \div 9 \quad \div 9 & \end{aligned}$$

$$m = 5$$

$$\begin{aligned} [2] \quad \frac{g}{6} + 8 &= 14 \\ -8 \quad -8 & \\ \frac{g}{6} &= 6 \\ \times 6 \quad \times 6 & \end{aligned}$$

$$g = 36$$

$$\begin{aligned} [3] \quad 58 &= 9m + 22 \\ -22 \quad -22 & \\ 36 &= 9m \\ \div 9 \quad \div 9 & \\ 4 &= m \end{aligned}$$

$$m = 4$$

$$\begin{aligned} [4] \quad 3m - 14 &= 7 \\ +14 \quad +14 & \\ 3m &= 21 \\ \div 3 \quad \div 3 & \end{aligned}$$

$$m = 7$$

$$\begin{aligned} [5] \quad 9m - 22 &= 194 \\ +22 \quad +22 & \\ 9m &= 216 \\ \div 9 \quad \div 9 & \end{aligned}$$

$$m = 24$$

$$\begin{aligned} [6] \quad 267 &= 12m - 21 \\ +21 \quad +21 & \\ 288 &= 12m \\ \div 12 \quad \div 12 & \\ 24 &= m \end{aligned}$$

$$m = 24$$

$$\begin{aligned} [7] \quad -4m + 11 &= -29 \\ -11 & \quad -11 \\ -4m &= -40 \\ \div -4 & \quad \div -4 \end{aligned}$$

$$m = 10$$

$$\begin{aligned} [8] \quad \frac{n}{5} - 9 &= -1 \\ & \quad +9 \quad +9 \\ \frac{n}{5} &= 8 \\ 5 \times 5 & \quad \times 5 \end{aligned}$$

$$n = 40$$

$$\begin{aligned} [9] \quad -71 &= -8m + 9 \\ -9 & \quad -9 \\ -80 &= -8m \\ \div -8 & \quad \div -8 \\ 10 &= m \end{aligned}$$

$$m = 10$$

$$\begin{aligned} [10] \quad 10m - 21 &= -61 \\ +21 & \quad +21 \\ 10m &= -40 \\ \div 10 & \quad \div 10 \end{aligned}$$

$$m = -4$$

$$\begin{aligned} [11] \quad 10m - 19 &= -149 \\ +19 & \quad +19 \\ 10m &= -130 \\ \div 10 & \quad \div 10 \end{aligned}$$

$$m = -13$$

$$\begin{aligned} [12] \quad 135 &= 9m - 9 \\ +9 & \quad +9 \\ 144 &= 9m \\ \div 9 & \quad \div 9 \\ 16 &= m \end{aligned}$$

$$m = 16$$