

**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]**

$$12m + 16 = 64$$

**[2]**

$$\frac{f}{6} + 15 = 18$$

**[3]**

$$83 = 7m + 13$$

**[4]**

$$7m - 16 = 26$$

**[5]**

$$4m - 21 = 59$$

**[6]**

$$132 = 8m - 20$$

**[7]**

$$-8m + 13 = -11$$

**[8]**

$$\frac{c}{4} - 11 = -4$$

**[9]**

$$-1 = -9m + 17$$

**[10]**

$$8m - 15 = -143$$

**[11]**

$$8m - 13 = -149$$

**[12]**

$$115 = 6m - 17$$

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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$$\begin{aligned}
 [1] \quad 12m + 16 &= 64 \\
 -16 \quad -16 & \\
 12m &= 48 \\
 \div 12 \quad \div 12 &
 \end{aligned}$$

$$m = 4$$

$$\begin{aligned}
 [2] \quad \frac{f}{6} + 15 &= 18 \\
 -15 \quad -15 & \\
 \frac{f}{6} &= 3 \\
 \times 6 \quad \times 6 &
 \end{aligned}$$

$$f = 18$$

$$\begin{aligned}
 [3] \quad 83 &= 7m + 13 \\
 -13 \quad -13 & \\
 70 &= 7m \\
 \div 7 \quad \div 7 & \\
 10 &= m
 \end{aligned}$$

$$m = 10$$

$$\begin{aligned}
 [4] \quad 7m - 16 &= 26 \\
 +16 \quad +16 & \\
 7m &= 42 \\
 \div 7 \quad \div 7 &
 \end{aligned}$$

$$m = 6$$

$$\begin{aligned}
 [5] \quad 4m - 21 &= 59 \\
 +21 \quad +21 & \\
 4m &= 80 \\
 \div 4 \quad \div 4 &
 \end{aligned}$$

$$m = 20$$

$$\begin{aligned}
 [6] \quad 132 &= 8m - 20 \\
 +20 \quad +20 & \\
 152 &= 8m \\
 \div 8 \quad \div 8 & \\
 19 &= m
 \end{aligned}$$

$$m = 19$$

$$\begin{aligned}
 [7] \quad -8m + 13 &= -11 \\
 -13 &\quad -13 \\
 -8m &= -24 \\
 \div -8 &\quad \div -8
 \end{aligned}$$

$$m = 3$$

$$\begin{aligned}
 [8] \quad \frac{c}{4} - 11 &= -4 \\
 &\quad +11 \quad +11 \\
 \frac{c}{4} &= 7 \\
 4 \times 4 &\quad \times 4
 \end{aligned}$$

$$c = 28$$

$$\begin{aligned}
 [9] \quad -1 &= -9m + 17 \\
 -17 &\quad -17 \\
 -18 &= -9m \\
 \div -9 &\quad \div -9 \\
 2 &= m
 \end{aligned}$$

$$m = 2$$

$$\begin{aligned}
 [10] \quad 8m - 15 &= -143 \\
 +15 &\quad +15 \\
 8m &= -128 \\
 \div 8 &\quad \div 8
 \end{aligned}$$

$$m = -16$$

$$\begin{aligned}
 [11] \quad 8m - 13 &= -149 \\
 +13 &\quad +13 \\
 8m &= -136 \\
 \div 8 &\quad \div 8
 \end{aligned}$$

$$m = -17$$

$$\begin{aligned}
 [12] \quad 115 &= 6m - 17 \\
 +17 &\quad +17 \\
 132 &= 6m \\
 \div 6 &\quad \div 6 \\
 22 &= m
 \end{aligned}$$

$$m = 22$$