

**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.

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**[1]**

$$12.8m + 15 = 104.6$$

**[2]**

$$3.3m + 11 = 40.7$$

**[3]**

$$140 = 12.7m + 13$$

**[4]**

$$3m - 18 = 14.7$$

**[5]**

$$9m - 9 = 202.5$$

**[6]**

$$139.6 = 8m - 14$$

**[7]**

$$-4.5m + 12 = 3$$

**[8]**

$$10.1m + 18 = -108.9$$

**[9]**

$$-51.3 = -7.7m + 18$$

**[10]**

$$4m - 9.7 = -37.7$$

**[11]**

$$12m - 15 = -282.6$$

**[12]**

$$162.2 = 9m - 16$$

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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$$\begin{aligned} \text{[1]} \quad 12.8m + 15 &= 104.6 \\ -15 \quad -15 & \end{aligned}$$

$$12.8m = 89.6$$

$$\div 12.8 \quad \div 12.8$$

$$m = 7.0$$

$$\begin{aligned} \text{[2]} \quad 3.3m + 11 &= 40.7 \\ -11 \quad -11 & \end{aligned}$$

$$3.3m = 29.7$$

$$\div 3.3 \quad \div 3.3$$

$$m = 9.0$$

$$\begin{aligned} \text{[3]} \quad 140 &= 12.7m + 13 \\ -13 \quad -13 & \end{aligned}$$

$$127.0 = 12.7m$$

$$\div 12.7 \quad \div 12.7$$

$$10.0 = m$$

$$m = 10.0$$

$$\begin{aligned} \text{[4]} \quad 3m - 18 &= 14.7 \\ +18 \quad +18 & \end{aligned}$$

$$3m = 32.7$$

$$\div 3 \quad \div 3$$

$$m = 10.9$$

$$\begin{aligned} \text{[5]} \quad 9m - 9 &= 202.5 \\ +9 \quad +9 & \end{aligned}$$

$$9m = 211.5$$

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

$$m = 23.5$$

$$\begin{aligned} \text{[6]} \quad 139.6 &= 8m - 14 \\ +14 \quad +14 & \end{aligned}$$

$$153.6 = 8m$$

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

$$19.2 = m$$

$$m = 19.2$$

$$\begin{aligned} [7] \quad -4.5m + 12 &= 3 \\ &\quad -12 \quad -12 \end{aligned}$$

$$\begin{aligned} -4.5m &= -9 \\ &\quad \div -4.5 \quad \div -4.5 \end{aligned}$$

$$m = 2.0$$

$$\begin{aligned} [8] \quad 10.1m + 18 &= -108.9 \\ &\quad -18 \quad -18 \end{aligned}$$

$$\begin{aligned} 10.1m &= -126.9 \\ &\quad \div 10.1 \quad \div 10.1 \end{aligned}$$

$$m = -12.6$$

$$\begin{aligned} [9] \quad -51.3 &= -7.7m + 18 \\ &\quad -18 \quad -18 \end{aligned}$$

$$\begin{aligned} -69 &= -7.7m \\ &\quad \div -7.7 \quad \div -7.7 \end{aligned}$$

$$9.0 = m$$

$$m = 9.0$$

$$\begin{aligned} [10] \quad 4m - 9.7 &= -37.7 \\ &\quad +9.7 \quad +9.7 \end{aligned}$$

$$\begin{aligned} 4m &= -28 \\ &\quad \div 4 \quad \div 4 \end{aligned}$$

$$m = -7.0$$

$$\begin{aligned} [11] \quad 12m - 15 &= -282.6 \\ &\quad +15 \quad +15 \end{aligned}$$

$$\begin{aligned} 12m &= -267.6 \\ &\quad \div 12 \quad \div 12 \end{aligned}$$

$$m = -22.3$$

$$\begin{aligned} [12] \quad 162.2 &= 9m - 16 \\ &\quad +16 \quad +16 \end{aligned}$$

$$\begin{aligned} 178.2 &= 9m \\ &\quad \div 9 \quad \div 9 \end{aligned}$$

$$19.8 = m$$

$$m = 9.0$$