

**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]**

$$3m + 23 = 38$$

**[2]**

$$8m + 23 = 39$$

**[3]**

$$80 = 10m + 20$$

**[4]**

$$9m - 18 = 27$$

**[5]**

$$11m - 9 = 134$$

**[6]**

$$251 = 11m - 13$$

**[7]**

$$-12m + 23 = -13$$

**[8]**

$$12m + 22 = -58$$

**[9]**

$$-4 = -3m + 23$$

**[10]**

$$7m - 22 = -134$$

**[11]**

$$12m - 21 = -201$$

**[12]**

$$123 = 8m - 13$$

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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$$\begin{array}{r}
 3m + 23 = 38 \\
 -23 \quad -23 \\
 \hline
 3m = 15 \\
 \div 3 \quad \div 3 \\
 \hline
 \boxed{m = 5}
 \end{array}$$

$$\begin{array}{r}
 8m + 23 = 39 \\
 -23 \quad -23 \\
 \hline
 8m = 16 \\
 \div 8 \quad \div 8 \\
 \hline
 \boxed{m = 2}
 \end{array}$$

$$\begin{array}{r}
 10m + 20 = 80 \\
 -20 \quad -20 \\
 \hline
 10m = 60 \\
 \div 10 \quad \div 10 \\
 \hline
 m = 6 \\
 \boxed{m = 6}
 \end{array}$$

$$\begin{array}{r}
 9m - 18 = 27 \\
 +18 \quad +18 \\
 \hline
 9m = 45 \\
 \div 9 \quad \div 9 \\
 \hline
 \boxed{m = 5}
 \end{array}$$

$$\begin{array}{r}
 11m - 9 = 134 \\
 +9 \quad +9 \\
 \hline
 11m = 143 \\
 \div 11 \quad \div 11 \\
 \hline
 \boxed{m = 13}
 \end{array}$$

$$\begin{array}{r}
 11m + 13 = 251 \\
 -13 \quad -13 \\
 \hline
 11m = 238 \\
 \div 11 \quad \div 11 \\
 \hline
 m = 21.636363636363636 \\
 \boxed{m = 21.6}
 \end{array}$$

$$\begin{array}{r}
 -12m + 23 = -13 \\
 -23 \quad -23 \\
 -12m = -36 \\
 \div -12 \quad \div -12
 \end{array}$$

$$m = 3$$

$$\begin{array}{r}
 12m + 22 = -58 \\
 -22 \quad -22 \\
 12m = -80 \\
 \div 12 \quad \div 12
 \end{array}$$

$$m = -6.7$$

$$\begin{array}{r}
 -3m + 23 = -4 \\
 -23 \quad -23 \\
 -3m = -27 \\
 \div -3 \quad \div -3
 \end{array}$$

$$9 = m$$

$$m = 9$$

$$\begin{array}{r}
 -16 \quad 7m + 22 = -134 \\
 +22 \quad +22 \\
 7m = -112 \\
 \div 7 \quad \div 7
 \end{array}$$

$$m = -16$$

$$\begin{array}{r}
 -15 \quad 12m + 21 = -201 \\
 +21 \quad +21 \\
 12m = -180 \\
 \div 12 \quad \div 12
 \end{array}$$

$$m = -15$$

$$\begin{array}{r}
 17 \quad 8m + 13 = 123 \\
 +13 \quad +13 \\
 8m = 110 \\
 \div 8 \quad \div 8
 \end{array}$$

$$17 = m$$

$$m = 17$$