

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]

$$6m + 22 = 40$$

[2]

$$11m + 10 = 43$$

[3]

$$70 = 6m + 10$$

[4]

$$4m - 22 = 14$$

[5]

$$7m - 14 = 133$$

[6]

$$64 = 5m - 21$$

[7]

$$-5m + 11 = -29$$

[8]

$$12m + 23 = -143$$

[9]

$$-63 = -9m + 9$$

[10]

$$7m - 21 = -56$$

[11]

$$8m - 16 = -200$$

[12]

$$28 = 3m - 14$$

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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$$\begin{array}{r}
 6m + 22 = 40 \\
 -22 \quad -22 \\
 \hline
 6m = 18 \\
 \div 6 \quad \div 6 \\
 \hline
 \boxed{m = 3}
 \end{array}$$

$$\begin{array}{r}
 11m + 10 = 43 \\
 -10 \quad -10 \\
 \hline
 11m = 33 \\
 \div 11 \quad \div 11 \\
 \hline
 \boxed{m = 3}
 \end{array}$$

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

$$\begin{array}{r}
 4m - 22 = 14 \\
 +22 \quad +22 \\
 \hline
 4m = 36 \\
 \div 4 \quad \div 4 \\
 \hline
 \boxed{m = 9}
 \end{array}$$

$$\begin{array}{r}
 7m - 14 = 133 \\
 +14 \quad +14 \\
 \hline
 7m = 147 \\
 \div 7 \quad \div 7 \\
 \hline
 \boxed{m = 21}
 \end{array}$$

$$\begin{array}{r}
 5m + 21 = 5m - 21 \\
 +21 \quad +21 \\
 \hline
 85 = 5m \\
 \div 5 \quad \div 5 \\
 \hline
 17 = m \\
 \hline
 \boxed{m = 17}
 \end{array}$$

$$\begin{array}{r}
 -5m + 11 = -29 \\
 -11 \quad -11 \\
 -5m = -40 \\
 \div -5 \quad \div -5
 \end{array}$$

$$m = 8$$

$$\begin{array}{r}
 12m + 23 = -143 \\
 -23 \quad -23 \\
 12m = -166 \\
 \div 12 \quad \div 12
 \end{array}$$

$$m = -13.8$$

$$\begin{array}{r}
 -9m + 9 = -63 \\
 -9 \quad -9 \\
 -72 = -9m \\
 \div -9 \quad \div -9
 \end{array}$$

$$8 = m$$

$$m = 8$$

$$\begin{array}{r}
 -5 \quad 7m + 21 = -56 \\
 +21 \quad +21 \\
 7m = -35 \\
 \div 7 \quad \div 7
 \end{array}$$

$$m = -5$$

$$\begin{array}{r}
 -23 \quad 8m + 16 = -200 \\
 +16 \quad +16 \\
 8m = -184 \\
 \div 8 \quad \div 8
 \end{array}$$

$$m = -23$$

$$\begin{array}{r}
 14 \quad 3m + 14 = 28 \\
 -14 \quad -14 \\
 3m = 14 \\
 \div 3 \quad \div 3
 \end{array}$$

$$14 = m$$

$$m = 14$$