

10.1 Solving 1-Step Equations

May 9, 2019

10:25 AM

- Rules
- Always work down
 - Separate equation with a line to keep sides organized
 - Identify variable. Goal is to have only the variable on one side
 - To get the variable "alone," you must UNDO the math around it so follow **SAMDER** to **SOLVE**.
 - Any operation must be done on both sides.



Solve the following:

a)

$$\begin{array}{r} -4 \\ +4 \\ \hline \end{array} = \begin{array}{r} 15 \\ +4 \\ \hline \end{array}$$

$$\begin{array}{r} x \\ \hline \end{array} = 19$$

b)

$$\begin{array}{r} x - 5.5 \\ +5.5 \\ \hline \end{array} = \begin{array}{r} 12.2 \\ +5.5 \\ \hline \end{array}$$

$$\begin{array}{r} x \\ \hline \end{array} = 17.7$$

c)

$$\begin{array}{r} 16 \\ -5 \\ \hline \end{array} = \begin{array}{r} x + 5 \\ -5 \\ \hline \end{array}$$

$$\begin{array}{r} 11 \\ \hline \end{array} = x$$

d)

$$\begin{array}{r} -13.2 + x \\ +13.2 \\ \hline \end{array} = \begin{array}{r} 17 \\ +13.2 \\ \hline \end{array}$$

$$\begin{array}{r} x \\ \hline \end{array} = 30.2$$

Shows 2 times x

e) $2x = -8.6$
 $\div 2$ $\div 2$

$x = -4.3$

Shows 4.5 times x

f) $4.5x = 40.5$
 $\div 4.5$ $\div 4.5$

$x = 9$

g) $-21.84 = 8.4x$
 $\div 8.4$ $\div 8.4$

$-2.6 = x$

h) $22.63 = -3.1x$
 $\div -3.1$ $\div -3.1$

$-7.3 = x$

Shows $x \div 2.5$

i) $\frac{x}{2.5} = 22(2.5)$

$x = 55$

Shows $x \div 3$

j) $\frac{x}{3} = -9.8(3)$

$x = -29.4$