

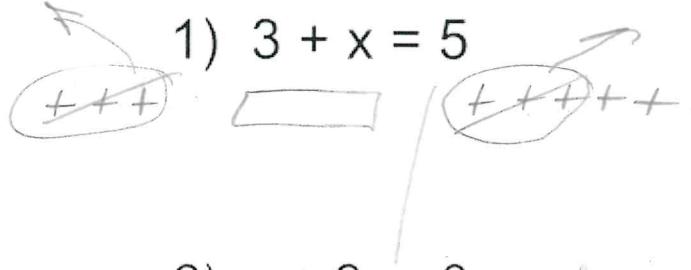
Solving Algebra Equations with Algebra Tiles



Name: key

Show the following equations using Algebra Tiles

1) $3 + x = 5$



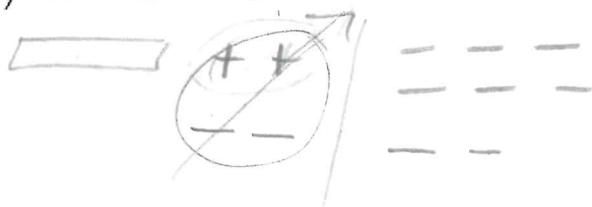
$x = 2$

Check

$$3+2=5$$

$$5=5$$

2) $z + 2 = -6$



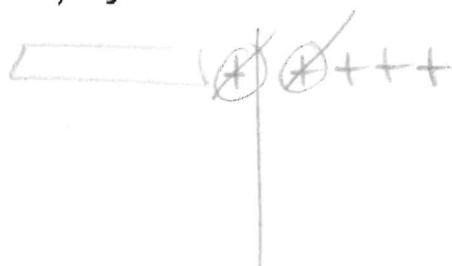
$z = -8$

Check

$$-8+2=-6$$

$$-6=-6$$

3) $y + 1 = 4$



$y = 3$

Check

$$3+1=4$$

$$4=4$$



4) $2b + 2 = 8$



$b = 3$

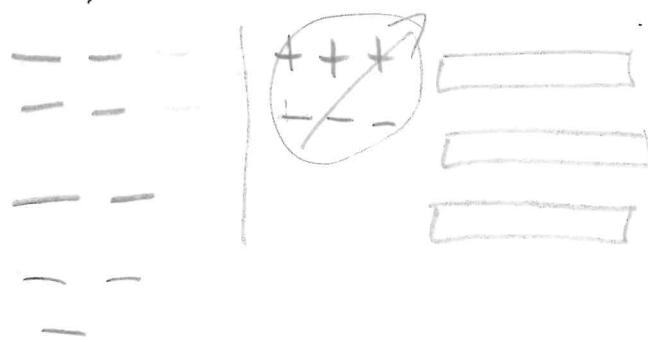
Check

$$2(3)+2=8$$

$$6+2=8$$

$$8=8$$

5) $-6 = 3 + 3x$



$x = -3$

Check

$$-6=3+3(-3)$$

$$-6=3+-9$$

$$-6=-6$$

How do we solve an equation?

We get the variable on one side of the equation

$$x = 4$$

by using

Inverse Operations.

Operations that reverse or undo each other

$$1) m + 2 = 8$$

$$\begin{array}{c} \boxed{} \\ m \end{array} + \cancel{+} | \cancel{(+)} + + + + +$$
$$= \cancel{-} | \cancel{-} -$$
$$6$$

$$2) d + 1 = 3$$

$$\begin{array}{c} \boxed{} \\ d \end{array} + \cancel{+} | \cancel{(+)} + +$$

$$d = 2$$

$$3) -4 + y = -6$$

$$\begin{array}{c} \cancel{-} - - - \\ \cancel{+} + + + \end{array} | \boxed{} | \begin{array}{c} \cancel{-} - - - \\ \cancel{+} + + + \end{array} - -$$
$$y = -2$$

$$4) w - 2 = -3$$

$$\begin{array}{c} \boxed{} \\ w \end{array} \cancel{-} | \cancel{(-)} -$$
$$\cancel{+} + | \cancel{(+)} +$$
$$-1$$