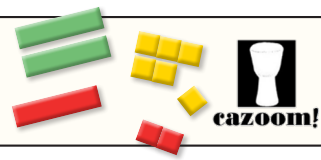
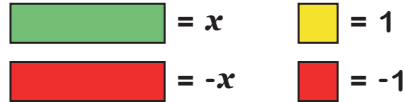


Solving Two Step Equations with Algebra Tiles **ANSWERS**



Here are the algebra tiles we will be using:



Section A

1) Match each diagram to the correct equation.



$$3x + 2 = 11$$

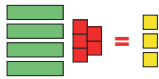
$$x + 2 = 11$$

$$2 - 3x = -10$$

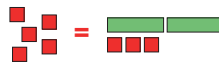
$$3x - 2 = 10$$

2) Draw algebra tiles to represent each equation.

$$4x - 5 = 3$$



$$-5 = 2x - 3$$



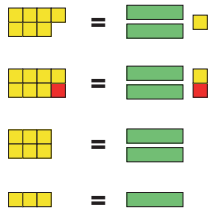
$$9 - 4x = 5$$



Section B Solve each equation using the algebra tiles.

Example

$$7 = 2x + 1$$



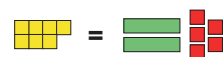
$$x = 3$$

$$7 = 2x + 5$$



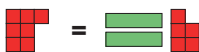
$$x = \underline{\quad 1 \quad}$$

$$7 = 2x - 5$$



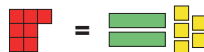
$$x = \underline{\quad 6 \quad}$$

$$-7 = 2x - 5$$



$$x = \underline{\quad -1 \quad}$$

$$-7 = 2x + 5$$



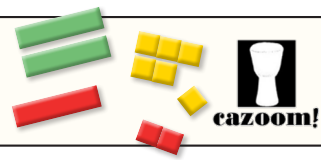
$$x = \underline{\quad -6 \quad}$$

$$-7 = 5 - 2x$$



$$x = \underline{\quad 6 \quad}$$

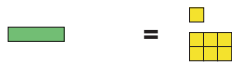
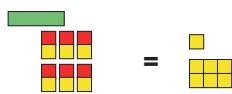
Solving Two Step Equations with Algebra Tiles **ANSWERS**



Section C Spot, Explain and Correct

A student has made a mistake when using algebra tiles to solve an equation. Can you spot, explain and correct their error?

$$3x - 6 = 3$$



$$x = 7$$

The student divided some terms by three but not all terms in the first stage. Here is one version of the correct working:



$$x = 3$$

Section D

Draw algebra tiles to represent each equation and then use your diagrams to solve the equations.

$$3x - 5 = 13$$

$$x = \underline{\quad 6 \quad}$$

$$1 + 2x = 7$$

$$x = \underline{\quad 3 \quad}$$

$$9 = 2 + 7x$$

$$x = \underline{\quad 1 \quad}$$

$$4x + 5 = -3$$

$$x = \underline{\quad -2 \quad}$$

$$-7 = 3 - 5x$$

$$x = \underline{\quad 2 \quad}$$

$$4 - 2x = 10$$

$$x = \underline{\quad -3 \quad}$$