



Name: \_\_\_\_\_

Div: \_\_\_\_\_

Date: \_\_\_\_\_

# 1.8 Solving Equations Using Algebra Tiles

You may use tiles to represent an expression.

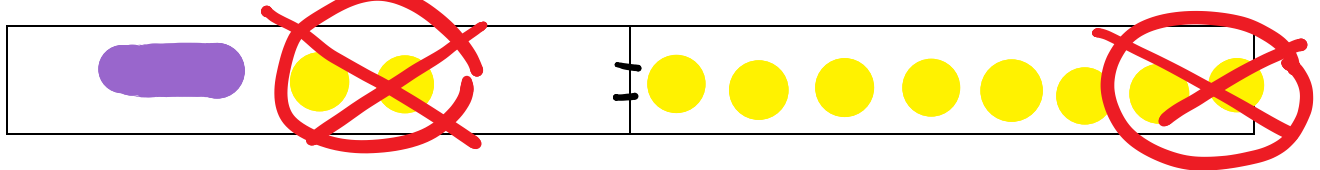
This unit tile represents + 1	This variable tile or x tile represents x
	

We can use tiles to solve an equation. For example to **solve  $x + 2 = 8$** :

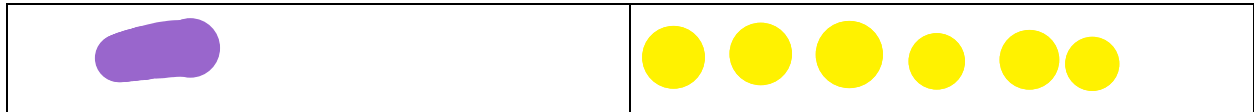
**Draw a vertical line in the center of your page.** (This represents the equal sign in the equation).

Arrange tiles on each side of the line to represent the expression or number on each side of the equal sign.

On the **left side**, place tiles to represent  $x + 2$ . On the **right side** place tiles to represent **8**.



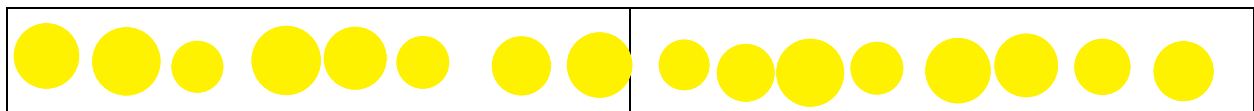
To get the unit tile by itself we **remove two unit tiles** (from both sides of the equation).



\*\* note how the **same process is happening to both expressions** (both sides of the equal sign)

The tiles now show that  **$x = 6$** .

To verify this is the correct solution, simply replace the x - tile with 6 unit tiles.



As you can see **both sides** now have **8 unit tiles**.

Practice Together: p. 40

**Homework:** p. 41 # 1-8 Bonus 9 and 10 \*\* Remember to double check your answers\*

**Next Assignment:** Unit Review p.43 + Questions 7-15