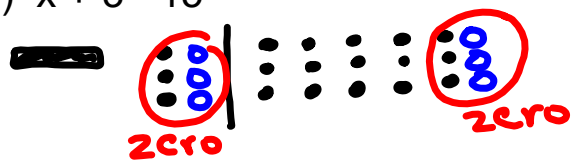
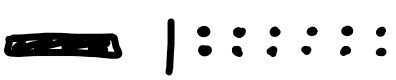
Warm Up Grade 8

solve using tiles

a) x + 3 =15



$x + 3 - 3 = 15 - 3$

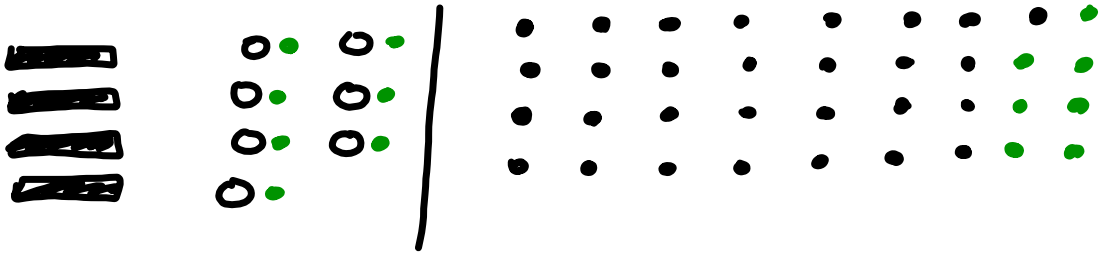


$x = 12$

Write an equation and solve using algebra tiles

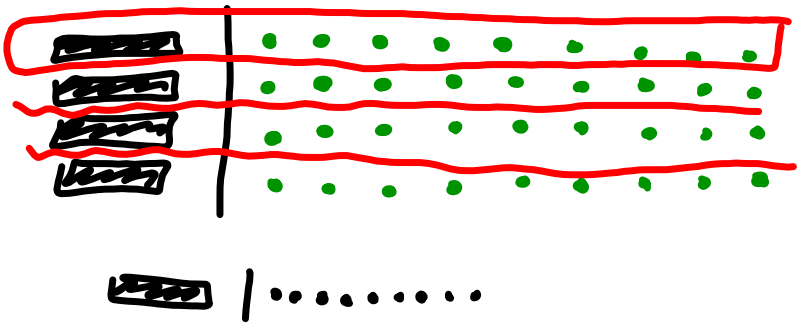
a) Four times a number decreased by 7 is 29

$4x - 7 = 29$



$4x - 7 + 7 = 29 + 7$

$\frac{4x}{\div 4} = \frac{36}{\div 4}$



$x = 9$

$$3x + 9 = 30$$

$$3x + 9 - 9 = 30 - 9$$

$$3x = 21$$

$$\div 3 \quad \div 3$$

$$x = 7$$

$$4 - 2x = 28$$

$$\cancel{4} \overset{+4}{} - 2x = 28 \overset{-4}{}$$

$$-2x = 24$$

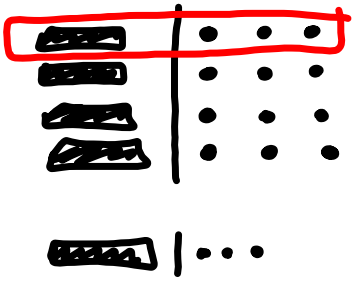
$\div(-2)$ $\div(-2)$

$$x = -12$$

Your Turn

Solve using tiles

a) 4x = 12

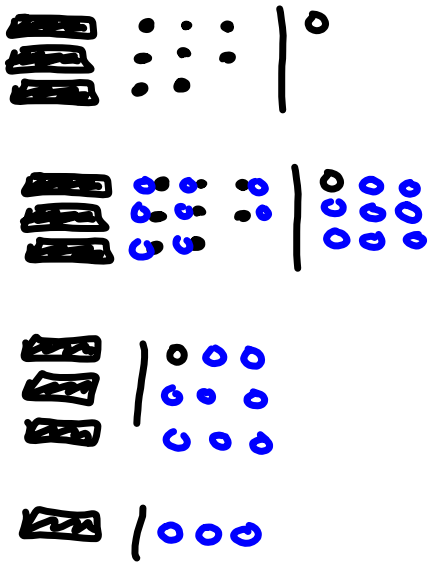


$4x = 12$

$\div 4 \quad \div 4$

$x = 3$

b) 3x + 8 = -1



$3x + 8 \overset{-8}{} = -1 \overset{-8}{}$

$3x = -9$

$\div 3 \quad \div 3$

$x = -3$

Solving Equations using Algebra

We will do on Wednesday

When we solve equations using algebra, the first thing we want to do is to "isolate" the variable. That is we want to get the variable by itself on one side of the equal sign.

To isolate the variable and solve the equation, we use opposite operations:

Addition	opposite ⟶	Subtraction
Subtraction	opposite ⟶	Addition
Multiplication	opposite ⟶	Division
Division	opposite ⟶	Multiplication

Remember whatever you do to one side of the equation you MUST do the other side.

Examples:

$2x + 4 = 20$

Class / Homework

Page 324 #5, 6, 7 Use tiles