

Unit 1

Name: _____

Lesson 1.2

Grade 6A

Date: _____

Multiplying and dividing integers

Worksheet (1)

Objective(s): Multiply and divide with positive and negative integers.

Multiplying Integers

$$2 \times 3 = ?$$

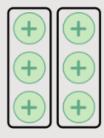
Visual models:

Two groups of positive 3 is positive 6.

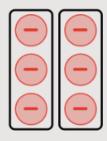


 $2 \times (-3) = ?$

Two groups of negative 3 negative 6.



Product:
$$2 \times 3 = 6$$

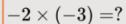


Product:
$$2 \times (-3) = -6$$

$$-2 \times (3) = ?$$

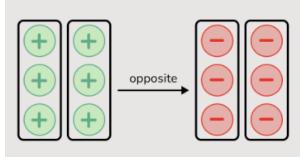
This is the same as the opposite of 2×3 .

 2×3 is 6 so the opposite of 6 is -6.

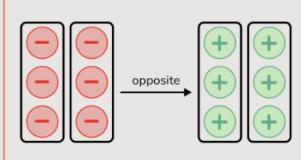


This is the same as the opposite of $2 \times (-3)$.

 $2\times(-3)=-6$ so the opposite of -6 is +6



Product:
$$-2 \times (3) = -6$$

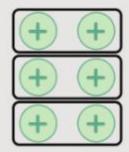


Product:
$$-2 \times (-3) = 6$$

Dividing Integers

$$6 \div 3 = ?$$

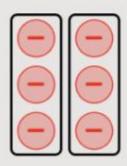
Dividing 6 into 3 equal groups gives two positive counters in each group.



Quotient:
$$6 \div 3 = 2$$

$$-6 \div (-3) = ?$$

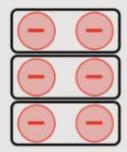
This can be thought of as -6 divided into groups of -3.



This gives two equal groups. Quotient: $-6 \div (-3) = 2$

$$-6 \div 3 = ?$$

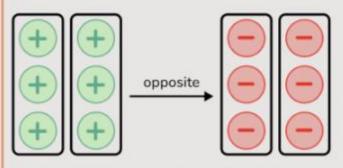
Dividing -6 into 3 equal groups gives two negative counters in each group.



Quotient:
$$-6 \div 3 = -2$$

$$6 \div (-3) = ?$$

This can be thought of as 6 divided into groups of -3.



When looking at the counters there are no groups of -3 in 6. Let's look at the opposite.

There are two groups of 3 in 6. So 6 divided into groups of -3 is -2.

Quotient:
$$6 \div (-3) = -2$$

1. Multiplication of integers:

1. Division of integers