

today I will try my
hardest to participate in
class discussions!

Today I will need....

- Pencil
- Graph Notebook
- Note Page for Division
- Vocabulary Sheet



7.NS.2b

I can divide negative and positive numbers. I can find patterns and use an algorithm to divide these numbers.

Warm-Up

In your graph spiral, answer the following questions:

Copy and study the equations below. Look for patterns.

Then, continue the patterns.

$$15 \div 5 = 3$$

$$10 \div 5 = 2$$

$$5 \div 5 = 1$$

$$0 \div 5 = 0$$

$$15 \div 3 = 5$$

$$10 \div 2 = 5$$

$$5 \div 1 = 5$$

(skip zeros)



divide numbers with the same sign

1. Ignore the signs and divide the two numbers in order
2. The answer will be positive

*examples:

$$-14 \div -7 =$$

$$30 \div 6 =$$



divide numbers with different signs

1. Ignore the signs and divide the two numbers in order
2. The answer will be negative

*examples:

$$14 \div -7 =$$

$$-30 \div 6 =$$

3.3 Division of Rational Numbers

As a team, answer the questions on pages 61 and 62.
Record the answers in your graph paper.

- D** 1. Find the quotients in each group below. Does the order matter? Explain your reasoning.

$$-12 \div (-4) \text{ and } -4 \div (-12)$$

Class Work Answers:

D. 1. 3 vs. $\frac{1}{3}$

Division is not commutative, the order of the numbers changes the answer.

Commutative Property

A math rule that states the order of the addition or multiplication of two numbers does not change the result:

$$a + b = b + a \text{ and } a \cdot b = b \cdot a$$

ex:

$$3 + 2 \text{ and } 3 \cdot 2$$

$$3 + 2 = 5 \text{ and } 2 + 3 = 5$$

$$4 \cdot 5 = 20 \text{ and } 5 \cdot 4 = 20$$

2. Find the quotients in each group.

Group 1

$$12 \div 3$$

~~$$4.5 \div 9$$~~

~~$$2\frac{1}{4} \div \frac{1}{2}$$~~

Group 2

~~$$-12 \div (-3)$$~~

$$-4.5 \div 9$$

~~$$-2\frac{1}{4} \div \left(-\frac{1}{2}\right)$$~~

Group 3

~~$$-12 \div (-3)$$~~

~~$$-4.5 \div (-9)$$~~

$$-2\frac{1}{4} \div \left(-\frac{1}{2}\right)$$

Class Work Answers:

C. 2.

Group 1	Group 2	Group 3
4	-4	4
0.5	-0.5	0.5
$4\frac{1}{2}$	$-4\frac{1}{2}$	$4\frac{1}{2}$

Real World Division

In your graph spiral, answer the following question:

1. Jeremy borrowed money from his mom to buy a video game for \$42.80. She agrees to deduct the same amount of money from his allowance each week for the next 8 weeks.
 - a. Write a division sentence to show the weekly change in his allowance.

 - b. Describe your answer in words.

Homework:

p.69 #25

(write number sentences to show work)