Multiplying and Dividing Fractions

**Multiplying**

* *What you know:*  · =
* *What you want to find out:*
  + What do you notice about the equation? How did we get the new numerator and denominator?

**Rules for Multiplying**

=

1. Multiply the numerators together. The answer is the new numerator.
2. Multiply the denominators together. The answer is the new denominator.

**Dividing**

* *What you know:*  ÷ =
* *What you want to find out:*
  + What do you notice about the equation? How did we get the new numerator and denominator?

**Rules for Dividing**

=

1. Flip the second fraction (find it’s reciprocal)
2. Now multiply!

**Match the Fractions**

A.=

B. =

C. =

D.

1.

2.

3.

4.

* Match the equations to their correct answer

**Negatives!!!**

* When multiplying negative fractions, use the same exact rules as multiplying integers
* What do you notice about these equations?

= = =

* When multiplying a negative and positive fraction, the answer is always negative
* What do you notice about these equations?

= = =

* When multiplying two negative fractions, the answer will always be positive.

**Dividing Negatives**

* When dividing negative fractions, use the same exact rules as dividing integers
* What do you notice about these equations?

= = =

* When dividing a negative and positive fraction, the answer is always negative
* What do you notice about these equations?

= = =

* When dividing two negative fractions, the answer will always be positive.

**Mixed Numbers**

* When multiplying and dividing with fractions containing mixed numbers, *first change the mixed number into an improper fraction*

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**Quick Practice-** Solve the equations. CHECK YOUR SIGNS!

1.

2.

3.

4.

**Multiplication Word Problem**

1. Ariel’s English hw is to read 24 pages. She reads 1/8 of the pages on the bus. How many pages did she read?

**Division Word Problem**

2. Joey has 12 ½ yards of material. A cape for a play takes yards. How many capes can Joey make?