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

Multiplying Rational Numbers

**Multiplying Decimals**

* You bought and IPAD for $450.50. After a year, its value **depreciated** (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_) to 0.82 of its original value. What was the value of the IPAD after one year?

**Step 1:** Multiply as you would with whole numbers. (Line your numbers up as far to the right as possible)

4 5 0 . 5 0

x  0 . 8 2 \*\* Remember your 0 placeholders!!!!

**Step 2:** Count the number of decimal places in each factor. Mark off the same number of decimal places in the product.

4 5 0 . 5 0 \_\_\_\_\_ # of decimal places

x  0 . 8 2 \_\_\_\_\_ # of decimal places

\_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_\_ Count in from right to left the added number of decimal places

and then place your decimal

\*\*DO NOT JUST DROP DOWN THE DECIMAL AS YOU DO IN

ADDITION\*\*

After one year, the IPAD had a value of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**REFLECT**

Compare your true answer with your estimated answer.

$450.50 ≈ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Is the answer reasonable?

**Multiplying Fractions**

The evening temperature is **decreasing** at a rate of 1 ½ °𝐹 per hour. What will the change in temperature be in 4 ½ hours, to the nearest whole degree?

Multiply the rational number −1 ½ 𝑎𝑛𝑑 4 ½

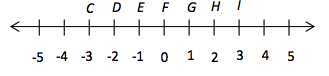
**Step 1:** Rename any mixed numbers as improper fractions

**Step 2:** Multiply numerator by numerator and denominator by denominator. (MULTIPLY STRAIGHT ACROSS) Simplify, if possible, and round the answer to the **nearest whole degree.**

After 4 ½, hours, the temperature change will be about \_\_\_\_\_\_\_\_\_°𝐹.

PRACTICE: Be sure to work **VERTICALLY.**

1. (0.02)(4.6)
2. Between which letters on the number line is 0.23? 7)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



1. Find the product of 8.) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Find the product of (2.038)(1.4) 9)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Find the product of and **identify the digit in the thousands place**. 10.) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Digit: \_\_\_\_\_\_\_\_\_\_\_\_

2 9 4 7

x 3 1 6