**Rational Numbers and Decimals**

Vocabulary:

Rational Numbers – is a number that can be written as a ratio of two integers

Terminating Decimals – decimals come to an end (ie… 0.3125)

Repeating Decimals – one or more digits repeat infinitely (ie… 0.3939)

Write *rational number* as a **decimal** Write *mixed number* as **decimal**

**5/16** 🡪 Type into the calculator **6 ¾** 🡪 First separate **6** and **¾**

  **5 ÷ 16**. This will give you Second, we take **¾** and+

 the decimal answer for 5/16 type into the calculator

 which is: **0.3125** **3 ÷ 4**. This will give you the

 decimal answer for ¾ which is: **0.75**. Now combine **6** and

 **0.75**. Decimal answer is: **6.75**

Note: Remember, that if you are asked to round, the rules are 4 or less🡪 **round** **down** (most of the time it stays the same), 5 or greater 🡪 **round up** to the next number.

Note: **Important**🡪 When rounding pay attention to the statement instruction about which number you are rounding and which number is being used to determine the round rule (up or down)

1. Rounding example: round to the nearest hundredth

Ex) **12.345** (the hundredth place is the #4, look at 5 to determine up or down, in this case we round up from **12.34 to 12.35**

1. Rounding example: round to the nearest whole number

Ex) **14.708** (the whole number value is 14, so we look at the first # after the decimal, 7, to determine up or down, in this case we round up **14 to 15**

Ex (1) – Write **2/3** as a **decimal** and state if it is a **repeating or terminating** decimal.

2/3 = 2 ÷ 3 = **0.66666**  Answer: **0.66666** it is a repeating decimal