3.4 Multiplying Rational Numbers

* Solve problems that require multiplying rational numbers

To multiply two rational numbers, use the properties for determining the sign of the product of 2 integers to predict the sign of the product of the rational numbers. (Let’s review those together now. Use your own shorthand to write down the properties in the space below)

Then:

* If the rational numbers are in fraction form:
  + Use the procedures for multiplying 2 fractions to determine the numerical value of the product. The rules are very simple:
    - Multiply the numerators
    - Multiply the denominators
    - Reduce
* If the rational numbers are in decimal form:
  + Use the procedures for multiplying 2 decimals to determine the numerical value of the product. (Yes, we are going to go old school today and do this the long way!)

Example #1

Any one remember how to cross reduce? This will help us do the question more efficiently.

Example #2

Write the mixed fractions as improper. Remember to predict whether this will be – or +

**Multiplying Rational Numbers to Solve Problems**

Example #1

On February 5, 2008, the price of a share in CIBC changed by -$1.640. A person owns 35 shares. By how much did those shares change in value that day?

You Try:

A diver descends at an average speed of 10.4 m/min. Use rational numbers to write her depth after 3.6 min.

Old School Time Remember how to set these up?? How should we write these to make them easier to do with pen and paper?

1. (-2.6)(-0.4) b) (260)(-0.04) c) (-0.62)(0.45)