Integers – Chapter 8 in Text

**Review of Integers**

* Integers are all positive and negative numbers, including zero.

**Addition and Subtraction**

* **Number lines can be used:** 
  + **positive** means moves to **the right**, **negative** means move to the **left**.
  + **addition** move **same direction**, **subtraction** move to the **opposite direction**

**Ex. 4 + (-2) =**

**Ex. (-4) + 3 =**

**Ex. 3 – 5 =**

**Ex. (-4) – (-4) =**

* **Zero pairs / integer chips can be used:**
  + pair up one negative with one positive to make zero (*Zero pair)*
  + the remaining chips that do not have pairs are your answer.

**Ex. 3 + (-5) =**

**Ex. 5 - 2 = 5 – (+2) =**

**Ex. (-2) + 5 =**

**Ex. 5 + 2 =**

**General Rule for Multiplying Integers:**

**same signs = positive answer, different signs = negative answer**

For example: if you multiply…

* + two positive numbers = positive product 3 x 3 =
  + two negative numbers = positive product (-3) x (-3) =
  + one neg and one positive = negative product (-3) x 3 =

\*\*more than 2 numbers, match up the signs from left to right\*\*

Ex. 3 x (-1) x (2) = (-1) x (-2) x (2) x (-1) =

**General Rule for Division of Integers:**

**same signs = positive answer, different signs = negative answer**

For example: if you multiply…

* two positive numbers = positive product 30 ÷ 3 =
  + two negative numbers = positive product (-30) ÷ (-3) =
  + one neg and one positive = negative product (-30) ÷ 3 =

**Modeling Multiplication:**

1. **Use integers chips -**  model or show it with groups (red = positive, blue = negative)

(*Number of groups x how many in each group*)

\*difficult to do with neg x neg numbers – must use **zero pairs to start**

1. **Use a number line –** model or show it by starting at 0 and jumping left for negative or

right for positive. Number of jumps will be positive.

\*difficult to do with neg x neg numbers

Textbook Questions:

**Multiplying Integers P. 292**

G -13, 14

B – 13, 14, 16

R – 13, 14,16, 19

**Multiplying integers again P. 297-98**

G -8, 11

B – 8, 11, 16, 20

R – 8, 11, 16, 20, 21

**Dividing Integers P. 310-311**

G – 9, 12

B & R– 9, 12, 18, 20

**Order of operations with integers P. 315**

G – 4, 7, 15

B & R – 4, 7 ,15, 20, 21

**Prepare for test:**

**Chapter review – DO NOT DO q’s 4, 7, 18**

**Practice Test – DO NOT DO q’s 2, 9**

* Ask Mrs. C for answers if you want to check your work!

Integer Project

**Play *integer race (page 322)* with a partner in class.**

**Create a different game or different version (using order of operations with integers) and write down the rules for your game with 2 example calculations.**