Integers – Chapter 9 in Text

**What are Integers?**

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

In real life, **integers often depend on your perspective**.

For example, what may be a positive gain for you, might be someone else’s loss.

Give an example in the space provided:

**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)*
  + *sometimes you may have to add extra zero pairs to get enough to subtract.*
  + 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 =**

* **Changing the signs:**

You can make subtraction easier by changing the signs that are *right beside each other*. For example:

1. **2 – (-2) =**

**is the same as 2 + 2 =**

1. **-5 – (-4) =**

**is the same as \_\_\_ + \_\_\_ =**

Textbook Questions:

**Integer Addition**

**P. 313- 315 #5, 7, 10, 12, 14**

**P. 319- 321 #3, 6, 8, 9, 12, 16**

**Integer Subtraction**

**P. 327-329 #6, 7, 9, 10, 12, 16, 18**

**P. 333-335 #5, 7, 10, 11, 15, 16, 19**

**Apply operations**

**P. 339-341 # 3, 6, 9, 10, 11, 15**

Integer Project

**Play *integer race* with a partner in class.**

**Create a different game or different version (using addition and subtraction with integers) and write down the rules for your game with example calculations.**

Assessment: Problem Solving (10 marks)

/2 Rules / Instructions are clear and make sense.

/8 Game play has possibilities for participants to answer both **addition and subtraction of integers**, including at least one question of each of the following types: (.5 for each type)

**Neg – neg**

**Pos – pos**

**Neg – pos**

**Pos - neg**

**Pos + pos**

**Neg + neg**

**Pos + neg**

**Neg + pos**

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