Visualizing Integers
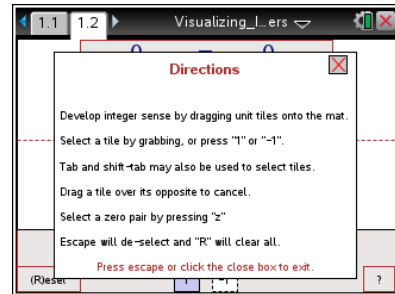## Student Activity

Name _____

Class _____

Open the TI-Nspire document *Visualizing_Integers.tns*.

This activity uses a virtual balance scale to let you explore
equations involving positive and negative integers.

Move to page 1.2.

Press ⌈ctrl⌉ ▶ and ⌈ctrl⌉ ◀ to navigate through the lesson.

1. Move two ⌈1⌉ tiles to the left side of the platform on the balance-scale. Describe the
    changes that you observe.

2. Move one ⌈-1⌉ tile to the right side. Describe the changes that you observe.

3. How do you know from the balance-scale that the values are unequal?

4. What tiles can you add to balance the scale? Illustrate or describe your strategies to
    support your answer.

**Click on the Reset box at the bottom left of page 1.2 to reset all tiles to a position below the
platform.**

5. What value makes the statement –1 + _?_ = 1 true? Move tiles to represent this
    number sentence. Then explain how the balance-scale confirms that it is true.

6. What value makes the statement –1 + _?_ = –3 true? Move tiles to represent this
    number sentence. Then explain how the balance-scale confirms that it is true.

Click on the Reset box at the bottom left of page 1.2 to reset all tiles to a position below the platform.

7. In how many ways can you use four tiles to make a true statement? Write each of the possible number sentences represented by your tiles.

8. Using what you learned in questions 1 through 7, fill in the blank with the value that makes each of the following true.

   a. −2 + _____ = 0   b. 3 + _____ = 0   c. 38 + −20 +_____ = 0

9. Use six tiles on one side of the scale to make a true statement. Describe your reasoning. Then draw a sketch of the model that you created.

10. Is it possible to balance the scale using five tiles? Justify your answer.