

Math Explorations

Part 2 Workbook

2013 Edition

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EXPLORING INTEGERS 1

Name: _____ Date: _____ Period: _____

SECTION 1.1 BUILDING NUMBER LINES

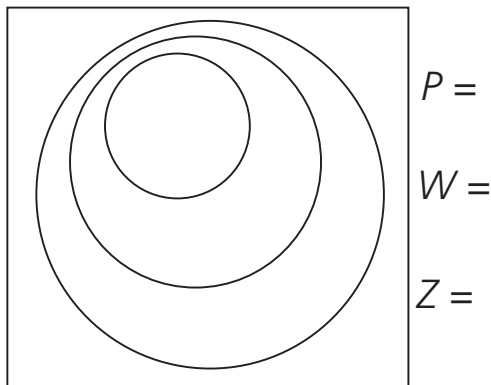
VOCABULARY

DEFINITION	EXAMPLE
Counting numbers/Natural numbers:	
Whole numbers:	
Integers:	
Origin:	
Venn Diagram	

Big Idea: How do we categorize numbers? How do we construct number lines?

EXAMPLE 1

Call the set of positive integers P , the set of whole numbers W , and the set of integers Z . Use the Venn diagram and relate these three sets. Label the sets and list the elements in each set.



EXPLORATION: CONSTRUCTING A NUMBER LINE

1. Draw a horizontal line.
2. Pick a point near the center of the line and call this point the origin. Label the origin with the number 0.
3. Locate the numbers 1,2,3, ..., 10, and -1,-2,-3, ..., -10.
4. Where would 20, 30, 50 be located? 100? 1,000?
5. Where would -20, -30, -50 be located? -100? -1000?

PRACTICE EXERCISES

1. The school is located at the origin of Pennsylvania Ave. We label its address as 0. The pizza place has address 7 and the library has address 4. Going in the other direction from the origin, we find a cell phone store with address -5 and a park with address -9. The number line represents Pennsylvania Ave. Label each of the above locations on the number line. Watch your spacing.



2. Alice visits Montreal, Canada where it is -9°C . Elliot visits Toronto, Canada where it is 5°C . Which temperature is closer to the freezing point? Draw a thermometer to prove your answer. Remember, when we measure temperature in degrees Celsius, 0°C is the freezing point of water.

SUMMARY (What I learned today)
