

## **JIGSAW DIRECTIONS FOR REPRESENTING DECIMALS**

### **Part I**

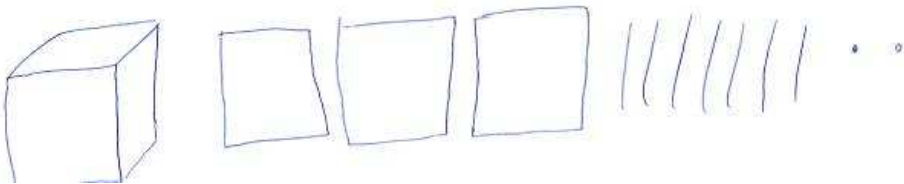
You will be given one of three different activities on representing decimals depending on your learning style. Complete your given activity.

Make sure each person in the group fully understands your model. After 20 minutes, we will create new groups in which each group will have an expert on one of these three representations. The expert of each model will then explain the associated model to the other group members.

1. First Activity: Kinesthetic with Base Ten Blocks
2. Second Activity: Visual with Decimal Squares
3. Third Activity: Reading combined with Visual with Number Lines

### Kinesthetic Activity with Base Ten Blocks

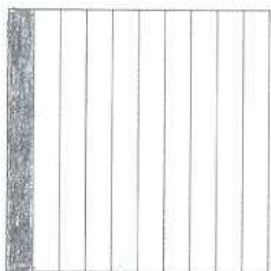
1. It is not a strange idea to use 1 object to represent an amount less than 1. After all 1 penny stands for \$0.01, or  $1/100$  of a dollar. Let's let 1 flat in base 10 pieces represent 1.
  - a. What would a long represent?
  - b. What would a unit represent?
  - c. What would a cube represent?
  - d. Draw the associated pieces to represent 0.35.
  - e. Draw the associated pieces to represent 23.67.
  - f. Draw the associated pieces to represent 11.08.
  
2. Now, let's let 1 long in base 10 pieces represent 1.
  - a. What would a flat represent?
  - b. What would a unit represent?
  - c. What would a cube represent?
  - d. Draw the associated pieces to represent 8.9.
  - e. Draw the associated pieces to represent 32.8.
  - f. Draw the associated pieces to represent 256.1.
  
3. List at least three different decimal numbers that the base ten pieces pictured below could represent. In each case, state the associated value of the flat.



- a. First possibility: \_\_\_\_\_ Associated Value of Flat: \_\_\_\_\_
- b. First possibility: \_\_\_\_\_ Associated Value of Flat: \_\_\_\_\_
- c. First possibility: \_\_\_\_\_ Associated Value of Flat: \_\_\_\_\_

### Visual Activity with Decimal Squares

1. Examine the decimal squares that are on your table and discuss what you notice about them with your group members.
2. Consider the following decimal square:



- a. If the shaded amount had a value of 1, what would be the value of the whole decimal square?
  - b. If the whole decimal square had a value of 0.1, what would be the value of the shaded amount?
3. Consider the following decimal square:



- c. If the shaded amount had a value of 1, what would be the value of the whole decimal square?
  - d. If the whole decimal square had a value of 0.1, what would be the value of the shaded amount?
  - e. If the shaded amount had a value of 0.01, what would be the value of the whole decimal square?
4. Using only ONE decimal square, shade in 0.6. Glue your decimal square below and state the value of the whole decimal square.



## Reading and Visual with Number Lines

1. Read pages 36 through 38 in your textbook.
- 2.

### **Class Activity 2D:** **Zooming In and Zooming Out on Number Lines**

1. Label the tick marks on the number lines that follow with appropriate decimal numbers. The second, third, and fourth number lines should be labeled as if they are “zoomed in” on the indicated portion of the previous number line.

