

Name _____

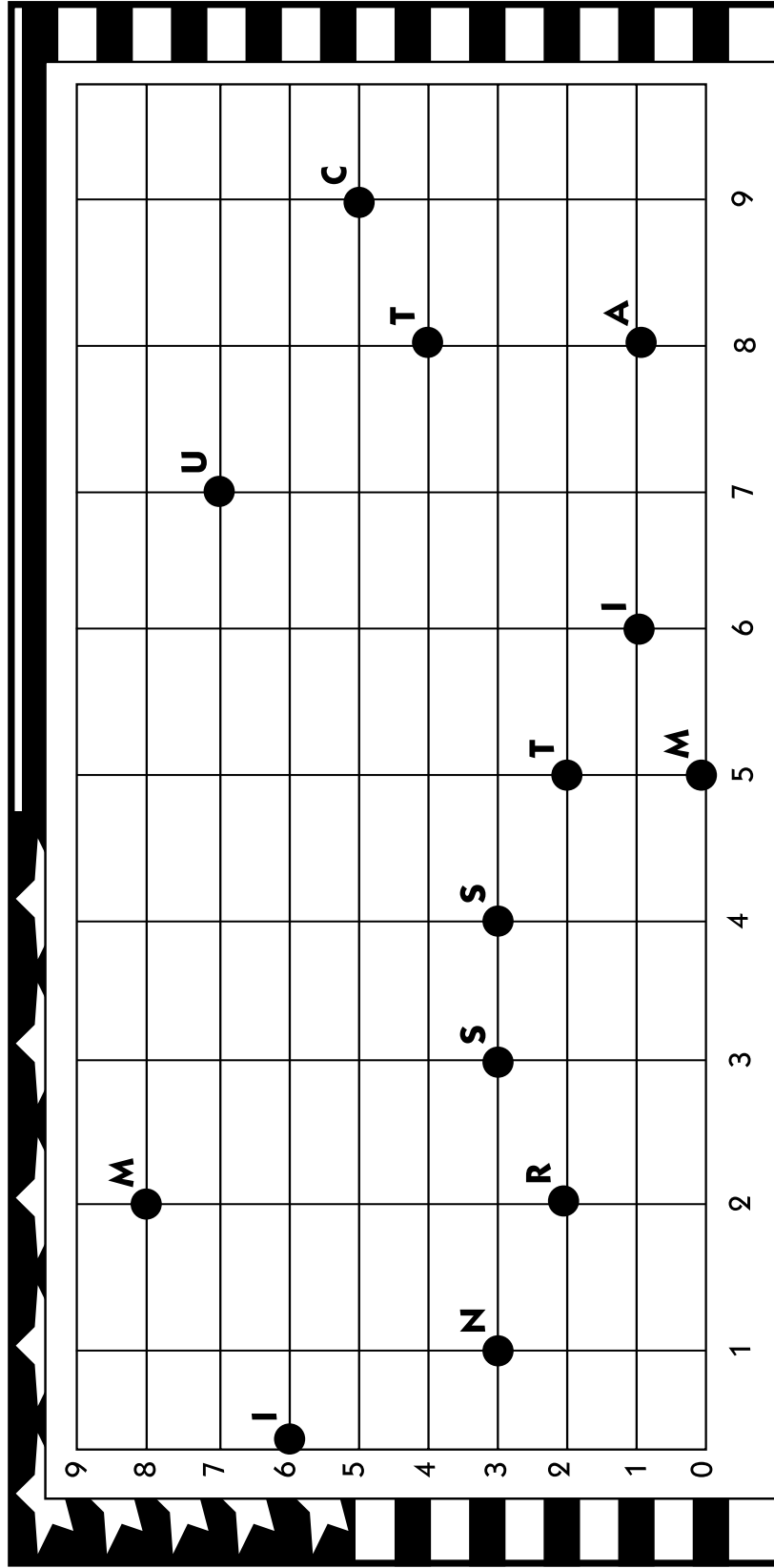
Date _____



Using a Coordinate Grid

DIRECTIONS:

Below is a list of ordered pairs. Find the exact point for each set of ordered pairs. At each point, there is a letter. As you find each point, write down the letter in the space provided:



What do you call a person who collects coins?

- (1,3) (7,7) (2,8) (6,1) (4,3) (5,0) (8,1) (5,2) (0,6) (3,3) (8,4)

Name _____

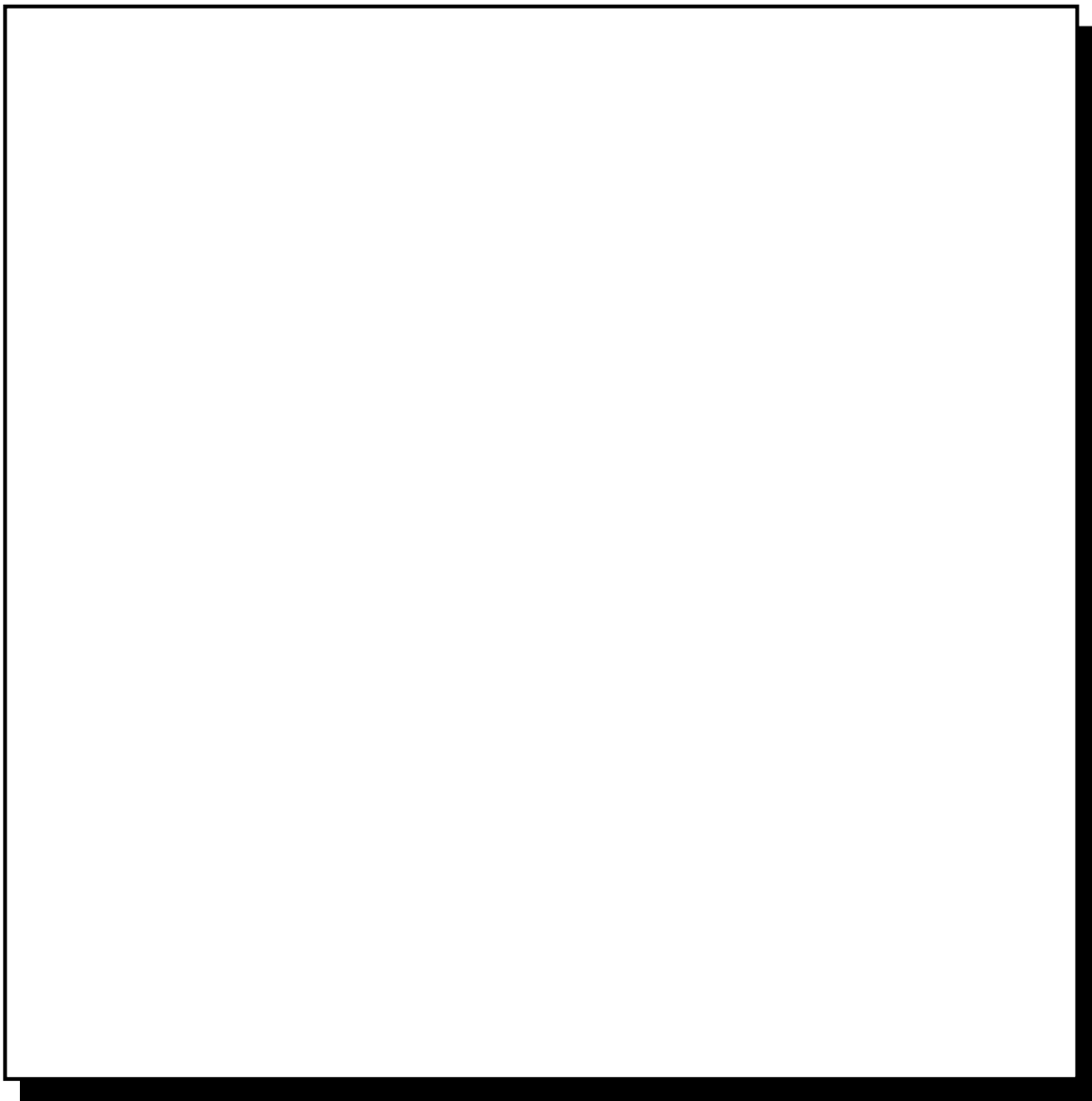
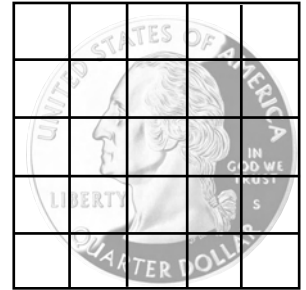
Date _____



Enlarge a Quarter

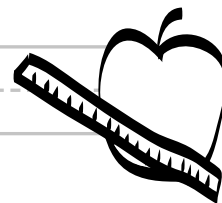
DIRECTIONS:

First, figure out how many times bigger the picture can be to fit in the large box below. Using a pencil, draw grid lines for the large box. Then, use these grid lines to help you enlarge the picture to fit the box. When you are finished, you can erase the gridlines and color your quarter.



Hint: The white box is 15cm tall by 15cm wide.

A Lesson Demonstrating Grids and Ordered Numbers



STEPS:

1. Put list of terms on the board and review definitions.
2. Demonstrate that finding an ordered pair on a grid (5,4) would be 5 over to the right (horizontally) and 4 up (vertically). Pass out the "Coordinate Grid" worksheet (page 20) and ask students to complete it.
3. Display the enlarged picture of the quarter with the grid. Demonstrate how to enlarge the picture on the board as follows:
 - a. Measure the distance between grid lines.
 - b. Multiply the distance between grid lines by three, and draw a larger grid on the board.
 - c. Transfer the image from the paper to the board by drawing the contents of each grid block in the appropriate box on the board.
4. Distribute the "Enlarge a Quarter" worksheet (page 21). Have students use a pencil and a ruler to draw in grid lines (to make a grid five boxes across, and five boxes down, gridlines should be three centimeters apart). *NOTE: For younger students, you may wish to draw in gridlines before copying sheets.*
5. Students will enlarge the picture, using the grid as a guide.
6. Students can erase the grid lines, and then color in their picture. These pictures can be displayed in the classroom.



ANSWER KEY:

What do you call a person who collects coins? NUMISMATIST



ENRICHMENT/EXTENSIONS:

Students can create a picture (e.g., a tree, a star) or design made up of points plotted on a grid, and determine the ordered pair for each point. The student can then read the ordered pairs to a partner, who will plot them on a grid, connecting the dots to achieve the same picture.

Students can create their own coordinate grid puzzle, like that on page 20. Students can write a question referring to some aspect of the lesson, and then "hide" the answer in a grid. By assigning a letter to various points in the grid, and then listing the ordered pairs in the correct order, students will make a puzzle for a partner to decipher.