

## City Map Project

Use a piece of 1-inch graph paper to complete this assignment. All streets should be drawn using black. Show all calculations on a separate sheet of paper. Clearly label the work for each problem and transfer the solution to this paper.

- Place a dot at the origin of your 1-inch grid paper.
  - Number the  $x$ -axis and  $y$ -axis.
1. Main Street runs through the points  $(3, 4)$  and  $(-1, -4)$ . **Draw and label Main Street.** Find each of the following for Main Street:
    - a. Slope: \_\_\_\_\_
    - b.  $y$ -intercept: \_\_\_\_\_
    - c. What is the equation representing main street? \_\_\_\_\_ Confirm your answer using the points  $(3, 4)$  and  $(-1, -4)$ .
  2. Winchester Ave. runs parallel to Main Street and runs through the point  $(1, 4)$ . **Draw and label Winchester Avenue.** Find each of the following for Winchester Ave.:
    - a. Slope: \_\_\_\_\_
    - b.  $y$ -intercept: \_\_\_\_\_
    - c. What is the equation representing Winchester Ave.? \_\_\_\_\_ Confirm your answer using the point  $(1, 4)$ .
  3. Sulphur Spring Road is perpendicular to Winchester Ave. and Main Street. It runs through the point  $(-2, 5)$ . **Draw and label Sulphur Spring Road.** Find each of the following for Sulphur Spring Road:
    - a. Slope: \_\_\_\_\_
    - b.  $y$ -intercept: \_\_\_\_\_
    - c. What is the equation representing Sulphur Road? \_\_\_\_\_ Confirm your answer using the point  $(-2, 5)$ .
  4. At the point  $(2, -3)$  sits the center of beautiful Lake Nelson. This lake is in the shape of a circle with a radius of 1 inch. **Draw Lake Nelson** (you may want to use a compass) **and color it light blue.** Find each of the following for Lake Nelson:
    - a. If 1 inch represents 500 feet, find the area of Lake Nelson \_\_\_\_\_
    - b. If 1 inch represents 500 feet, what is the circumference of the lake? \_\_\_\_\_
  5. Wilson Boulevard has a slope that is undefined with an  $x$ -intercept of  $(-3, 0)$ . **Draw and label Wilson Blvd.** Write an equation representing Wilson Boulevard \_\_\_\_\_. Describe the graph of Wilson Blvd.
  6. The points  $(-1, 0)$ ,  $(-3, 0)$  and  $(-3, -4)$  form the triangular Briar Patch Park. **Draw and label Briar Patch Park.** Color the park brown. If 1 inch represents 500 feet, find the total area of this park. \_\_\_\_\_
  7. Handley Ave. has a slope of 0 with a  $y$ -intercept of 2. **Draw and label Handley Avenue.** List all streets that will intersect with Handley Ave. \_\_\_\_\_
  8. Shepherd Drive goes through point  $(3, -1)$  and intersects Main St. It then ends at the intersection of Handley Ave. and Winchester Ave. **Draw and label Shepherd Drive** and find each of the following:
    - a. The slope of Shepherd Drive \_\_\_\_\_
    - b. The equation written in Standard form \_\_\_\_\_ Confirm your answer using  $(3, -1)$ .
  9. The famous rectangular Louis Armstrong Park is located at the points  $(0, -4)$ ,  $(0, -5)$ ,  $(-3, -4)$ , and  $(-3, -5)$ . **Draw and label Louis Armstrong Park.** Color the park green.
    - a. If 1 inch represents 500 feet, find the total area of the park. \_\_\_\_\_
    - b. What is the perimeter of the park? \_\_\_\_\_
  10. Jackson Street is perpendicular to Shepherd Drive and runs through the point  $(1, -1)$ . **Draw and label Jackson Street.** Find the following:
    - a. The slope of Jackson Street \_\_\_\_\_
    - b. Write the equation of Jackson Street in Standard Form \_\_\_\_\_ Confirm your answer using the point  $(1, -1)$ .

# City Map Project Grid

