

Geometry Village

Materials Needed:

Pencil, notebook paper, rulers, yardstick, markers, crayons, colored pencils, scissors, glue, 28x22 inch poster board, construction paper

Before You Begin:

Carefully read the directions through before beginning to gain an understanding of what you are going to do.

Before creating your final project, make a rough draft of your map on notebook paper. You will use the draft throughout the project to add all the details. Then use your rough draft as a guide to create your map on a piece of poster board.

There are 10 requirements for a total of 100 points.

1. **Draw one set of parallel roads and name them.** The name must relate to math (for example: Decagon Road, Fraction Street, etc.). Also, make sure that all the roads are the same width.
2. **Draw one road that is perpendicular to another road.** Name it.
3. **Draw one road that intersects with another road on your map.** They may intersect each other or any of the other roads. These roads intersect but are not perpendicular. Name these roads.
4. **Make 10 shapes out of 4 by 4 square pieces of construction paper.** The shapes are as follows: triangle, square, rectangle, trapezoid, pentagon, hexagon, heptagon, octagon, nonagon, decagon. Label the perimeter of each shape.
5. **The polygons created in step 4 are the building in your town. Each building needs to have a mathematical term in its name** (for example: Optical Octagon, Multiplication Manor, Perimeter Palace, etc.).
6. **In an open space of your map, you must create a park that meets these specific requirements:** 1. The park is a square with an area of 36 square inches. 2. Within the square, draw a round sandbox with a 1-inch diameter. 3. Draw a rectangular swimming pool that has a perimeter of 6 inches. 4. Draw a pond with a diameter of 1 inch. 5. Draw a right scalene triangle for the picnic area with a height of 2 inches and a base of 1.5 inches.
7. **Put 5 other things on your map.** Some possibilities are extra roads, a river, cars and trucks, a train station, or other things commonly found in a town.
8. **Use crayons, markers, or colored pencils to make your map colorful and attractive.**
9. **Give your town a name.** Place the name at the top of your map in marker.
10. **Take a picture of your map and email it to your teacher.**

Geometry Town Rubric

Requirements	Points Possible	Points Earned
1 set of named parallel roads	5	
1 named perpendicular road	5	
1 set of named intersecting roads	5	
10 required polygons	10	
All 10 objects named and perimeter labeled	25	
Mathematical terms used in the names of the 10 buildings	10	
30 square inch park with 1-inch diameter sandbox, rectangular pool with perimeter of 6 inches, right scalene triangle with correct base and height, and pond with correct diameter	10	
5 other things added on the map	10	
Map is colorful and attractive	10	
Map is named and labeled	10	
Total	Possible Points: 100	Total Points Earned: