Geometric City

Instructions:

- Carefully read all directions/requirements before beginning the project, so you know exactly what you need to do!!
- Before starting the project, you must make a rough draft of your city on notebook paper. Use the rough draft to sketch out where things will go on the larger map.
- The R.D. will be worth 10 points.
- Use your R.D. as a guide to help you create the city on construction paper.
- Think about the areas that need to be reserved for specific things in your town, particularly the park, the legend and the title.

Requirements:

1. Draw 3 parallel roads, and name them. (The names can be real or made up. For example: Lola Avenue, Garcia Road, Maui Boulevard.) Use a ruler to draw the lines for your roads. Also make sure that all roads are the same width (size). Hint: Your roads will look neater if you erase any solid lines where 2 or more roads meet. Make it look realistic. There are no lines where roads intersect.

2. Draw 2 roads that are each perpendicular to at least one of the 3 parallel lines, and name these roads.

3. Draw 2 intersecting roads on the map of your city. They may intersect each other, or any of the other roads. These roads intersect, but are not perpendicular. Name these roads.

4. In the lower left corner of your town, you will create a park. The park must meet the following criteria:
   - The park is a square with an area of 25 square feet. \( A = bh \)
   - Within this square draw a round sandbox with a one inch diameter.
   - Draw a rectangular swimming pool that has a perimeter of 6 inches
   - Draw a pond with a circumference of 6.28 inches
   - Finally, draw a right scalene triangle for the picnic area

5. Using the example shapes provided below, create 10 (ten) buildings for your city. Each building must have a mathematical name (Examples: Angular Apartments, Median Motel, Granny Petunia’s Pie \( \Pi \) Store, Optical Octagons, Triangular Tire Depot, etc.)

6. You must add 5 (five) other items. Some possibilities are: slide and swings for the park, picnic tables in the picnic area of your park, extra roads, people, trees/plants, cars and trucks on the highways, traffic signs, a railroad, a bus station, a river, etc.
Geometric City

7. Use crayons, markers, or colored pencils to make your map colorful and NEAT.

8. **Give your city a name.** Place the name at the top of your map. (Be creative!)

9. **Add a map key or legend** in the lower right hand corner of your map. It should include a scale of miles, symbols to stand for your roads, etc.

**Before you begin drawing, think about the areas that need to be reserved for specific things in your town, particularly the park, the legend and the title.**

Shapes to use:

- Triangle
- Square
- Rectangle
- Trapezoid
- Rhombus
- Parallelogram
- Pentagon
- Hexagon
- Heptagon
- Octagon