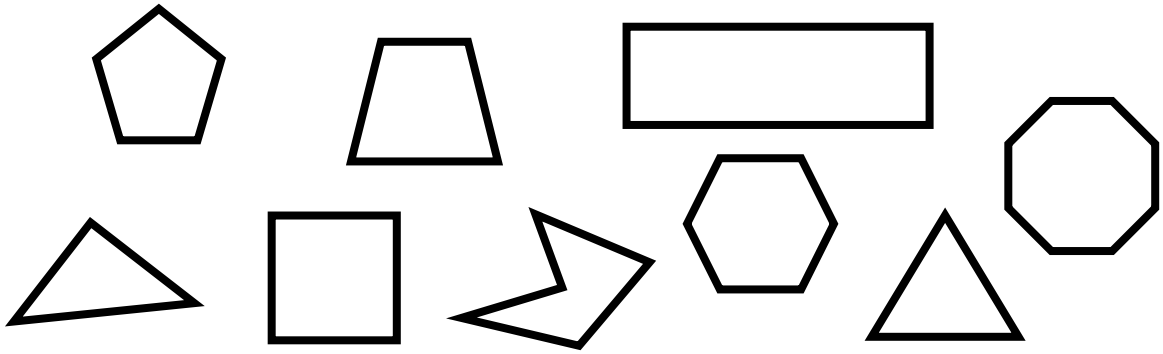
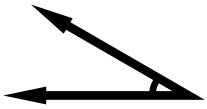
Geometry Town Vocabulary Words

Polygon - A closed figure that has straight sides.

Examples can include triangle, square, trapezoid, rhombus, pentagon, hexagon, octagon, etc.

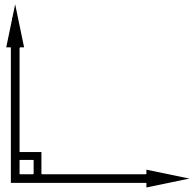


Acute Angle



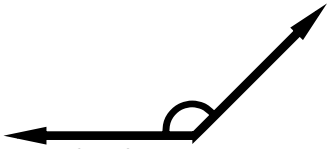
An angle that measures LESS than 90°.

Right Angle



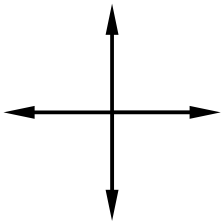
An angle that measures 90°.

Obtuse Angle



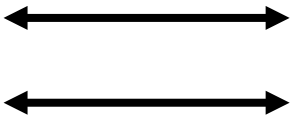
An angle that measures GREATER than 90°.

Perpendicular Lines



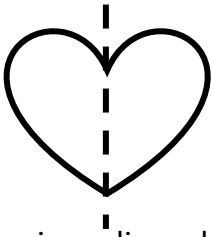
Lines that cross and for RIGHT angles

Parallel Lines



Lines that are the same distance apart. They will NEVER cross.

Line of Symmetry



The imaginary line where you could fold the image and have both halves match exactly.

Name _____ Date _____

Geometry Town

In your role as city planner, you have been asked to plan a new part of your city. Create a model of your plan, including 2-D models of the buildings, to present to the committee.
You are required to meet the following specifications.

- 4 streets that are parallel to each other
- 1 road that is perpendicular to the 4 parallel streets
- 1 avenue that intersects at least 2 streets but is not perpendicular to them
- 8 buildings that are the shape of any polygon (see definition sheet for examples) and color coded using the following requirements
  - 2 different shaped red buildings that have at least one right angle and at least one set of parallel sides
  - 2 different shaped green buildings that have at least one obtuse angle
  - 2 different shaped blue buildings with no parallel or perpendicular sides
  - 2 different shaped yellow buildings that are right triangles
- 1 park shaped like a right triangle with the following features:
  - A swimming pool in the shape of a figure that has only acute angles
  - A right triangular sandbox
  - A triangular shaped sandbox with an obtuse angle
- 1 park that has at least 4 different geometric shapes inside of it but has a symmetrical design (a line of symmetry could be drawn through the park)
- Name the park and the streets, the road, and the avenue.

Plan your city on a sheet of paper first. Once your plan is complete, create your model. You can either create it in PowerPoint, use construction paper, or build your model on 1” grid chart paper. Use paper strips to create the streets, road, and avenue, and draw your buildings. Add the required features to the park by creating the appropriate 2-D shapes for your park. Be sure to label all of your buildings and streets.

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Name _____ Geometry Town

1. Four streets that are parallel to each other
   a. _____ c. _____
   b. _____ d. _____
2. One road that is perpendicular to the 4 parallel streets
   a. _____
3. One avenue that intersects at least 2 streets but is not perpendicular to them
   a. _____
4. Two different shaped red buildings that have a least one right angle and at least one set of parallel sides.
   a. _____
   b. _____
5. Two different shaped green buildings that have at least one obtuse angle
   a. _____
   b. _____
6. Two different shaped blue buildings with no parallel or perpendicular sides
   a. _____
   b. _____
7. Two different size yellow buildings that are right triangles
   a. _____
   b. _____
8. A park (_____) that is shaped like a right triangle with the following features inside of it:
   a. A swimming pool in the shape of a figure that has only acute angles
   b. A right triangular sandbox
   c. A triangular shaped sandbox with an obtuse angle
9. A <u>different</u> park (_____) that is symmetrical and has at least 4 different geometric figures inside of it. (Write the correct vocabulary word for each of the 4 figures below.)
   a. _____ c. _____
   b. _____ d. _____