

Section 1-1:

After this section you will have completed the following Common Core State Standard(s):

- **G.CO.1: Know precise definitions of angle, circle, perpendicular and parallel lines and line segments based on the undefined notions of point, line distance along a line/ around an arc, etc.**

And will be improving your skills in the following Mathematical Practice(s):

4. Model with mathematics

6. Attend to precision

Specifically, you should be able to:

- **Identify and model points, lines and planes**
- **Identify intersecting lines and planes**

The three building blocks of geometry are points, lines, and planes. These are called _____ because although they can be described it's hard to give them a concrete definition.

Point:

Line:

Plane:

Collinear:

Coplanar:

Intersection:

Using the undefined terms we can define some other important figures.

Space:

Examples:

Section 1-2:

After this section you will have completed the following Common Core State Standard(s):

- **G.CO.1: Know precise definitions of angle, circle, perpendicular and parallel lines and line segments based on the undefined notions of point, line distance along a line/ around an arc, etc.**

And will be improving your skills in the following Mathematical Practice(s):

6. Attend to precision

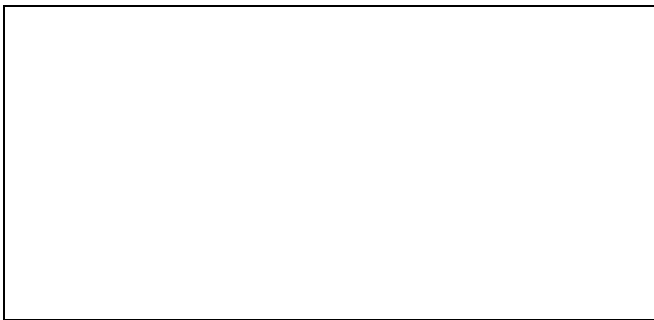
Specifically, you should be able to:

- **Measure segments**
- **Calculate with measures**

Again, using the undefined terms we can define some other important figures.

Line Segment(aka _____):

Betweenness of Points:



Shapes like segments are _____, while number like measures of segments are _____.

Examples:

Section 1-3:

After this section you will have completed the following Common Core State Standard(s):

- **G.CO.1: Know precise definitions of angle, circle, perpendicular and parallel lines and line segments based on the undefined notions of point, line distance along a line/ around an arc, etc.**

And will be improving your skills in the following Mathematical Practice(s):

- 2. Reason abstractly and quantitatively**
- 7. Look for and make use of structure**

Specifically, you should be able to:

- **Find the distance between 2 points**
- **Properly use the midpoint formula**

The distance between two points (x_1, y_1) and (x_2, y_2) is given by:

The midpoint between two points (x_1, y_1) and (x_2, y_2) is given by:

Segment bisector:

Examples:

Section 1-4:

After this section you will have completed the following Common Core State Standard(s):

- **G.CO.1: Know precise definitions of angle, circle, perpendicular and parallel lines and line segments based on the undefined notions of point, line distance along a line/ around an arc, etc.**

And will be improving your skills in the following Mathematical Practice(s):

- 5. Use appropriate tools strategically**
- 6. Attend to precision**

Specifically, you should be able to:

- **Measure and classify angles**
- **Identify and use congruent angles and the bisector of an angle**

Ray:

Angle:



Angle bisector:

Section 1-5:

After this section you will have completed the following Common Core State Standard(s):

- **Prepare for G.SRT.7: Explain and use the relationship between the sign and cosine of complementary angles**

And will be improving your skills in the following Mathematical Practice(s):

- 2. Reason abstractly and quantitatively**
- 3. Construct reliable arguments and critique the reasoning of others**

Specifically, you should be able to:

- **Identify and use the special pairs of angles**
- **Identify perpendicular lines**

Diagrams:

Adjacent angles:

Linear Pair:

Vertical Angles:

Complementary:

Supplementary:

Perpendicular:

Examples:

Section 1-6:

After this section you will have completed the following Common Core State Standard(s):

- **G.GPE.7: Use coordinates to compute perimeters of polygons and areas of triangles and rectangles using distance formula**

And will be improving your skills in the following Mathematical Practice(s):

- 2. Reason abstractly and quantitatively**
- 6. Attend to precision**

Specifically, you should be able to:

- **Identify and name polygons**
- **Find perimeter, circumference and area of 2 dimensional figures**

Polygon:

Convex:

Concave:

Equilateral:

Equiangular:

Regular:

Triangle:

Square:

Rectangle:

Circle:

Examples: