

33. Defining Geometry by David White

¹Geometry is a branch of mathematics that focuses on shapes. ²A large part of geometry is the study of the lines, points, and angles used to form these shapes. ³A line is a set of points that extend forever in two directions. ⁴A line segment can be thought of as a part of a line joining two end points. ⁵If two lines join at one point, they form an angle. ⁶An angle is two rays* that extend from the same point. ⁷Two rays that intersect at a right angle (90-degree) are called **perpendicular**.

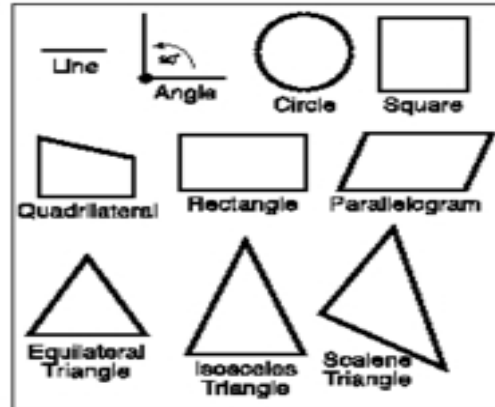
⁸Lines can be joined to form geometric figures. ⁹A three-sided figure is a **triangle**. ¹⁰There are several different types of triangles, which vary according to the length and angles of the lines that form them. ¹¹Here are some definitions.

¹²**Equilateral triangle:** a triangle with three equal sides

¹³**Isosceles triangle:** a triangle with two equal sides

¹⁴**Scalene triangle:** a triangle with no equal sides

¹⁵A four-sided figure is called a **quadrilateral**, which is four points joined by four lines to produce four sides. ¹⁶The following are definitions of specific types of quadrilaterals:



¹⁷**Parallelogram:** a quadrilateral that has opposite sides that are parallel and equal in length

¹⁸**Rectangle:** a parallelogram that has four right angles

¹⁹**Square:** a rectangle that has four equal sides

²⁰The last basic geometric figure to define is the **circle**, a perfectly round enclosed shape made by a curved line. ²¹All points on the line are the same distance (equidistant) from a fixed point in the center of the circle.

*ray: a half line that extends forever in one direction from a point