33. Defining Geometry
by David White

[3]Geometry is a branch of mathematics that focuses on shapes. [2]A large part of geometry is the study of the lines, points, and angles used to form these shapes. [3]A line is a set of points that extend forever in two directions. [4]A line segment can be thought of as a part of a line joining two end points. [5]If two lines join at one point, they form an angle. [6]An angle is two rays* that extend from the same point. [7]Two rays that intersect at a right angle (90-degree) are called **perpendicular**.
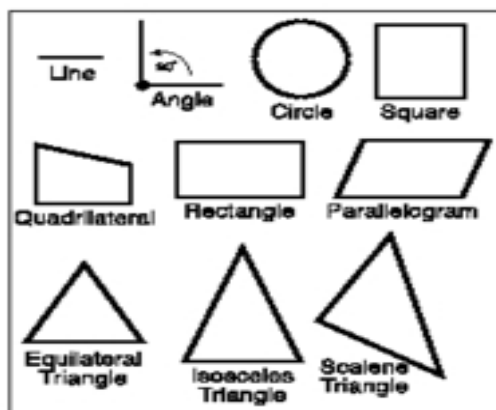
[8]Lines can be joined to form geometric figures. [9]A three-sided figure is a **triangle**. [10]There are several different types of triangles, which vary according to the length and angles of the lines that form them. [11]Here are some definitions.

> [12]**Equilateral triangle**: a triangle with three equal sides
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> [13]**Isosceles triangle**: a triangle with two equal sides
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> [14]**Scalene triangle**: a triangle with no equal sides

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

> [17]**Parallelogram**: a quadrilateral that has opposite sides that are parallel and equal in length
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> [18]**Rectangle**: a parallelogram that has four right angles
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> [19]**Square**: a rectangle that has four equal sides

[20]The last basic geometric figure to define is the **circle**, a perfectly round enclosed shape made by a curved line. [21]All 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