Transformations Vocabulary Study Guide

Coordinate Plane: A two-dimensional system in which a location is described by its distances from two perpendicular number lines (axes).

X-axis: the horizontal number line

Y-axis: the vertical number line

Ordered pairs: A pair of numbers used to locate a point in a coordinate plane; the pair is written in the form (x-coordinate, y-coordinate); the x- coordinate tells the distance left or right from the origin; the y-coordinate tells the distance up or down from the x-axis.

Translation: A transformation in which a geometric figure is moved to another location without changing its size or orientation.

Transformation: Operations that alter the location or form of a figure.

Reflection: A transformation in which all points are mirrored over a line of reflection (either the x-axis or the y-axis).

Dilation: A transformation in which a figure grows larger or smaller.

Rotation: A transformation in which all points are turned through an angle of rotation about a center of rotation.

Origin: In a coordinate plane, the point at the intersection of the x- and y-axes; the point (0, 0).

Quadrant: One of four portions into which the coordinate plane is divided by the horizontal and vertical axes.

Counter-clockwise: Opposite direction to which the hands on a clock move.