

Name: _____

Geometry Review Sheet

Know terms and properties for the following:

Polygons: any closed figure with line segments

Regular Polygon: all sides and angles =.

Triangles: sum of the angles = 180°

Classified by Sides:

Equilateral: 3 = sides, angles

Isosceles: 2 = sides, angles

Scalene: no = sides, angles

Classified by Angles:

Acute: **3** acute angles

Obtuse: **1** obtuse angle

Right: **1** right angle

Across from equal sides are equal angles and vice versa.

Quadrilaterals: 4-sided figure. Sum of the angles equals 360° .

Know properties of parallelograms, rhombus, rectangles, squares, and trapezoids.

Pentagons, Hexagons, Octagons, Decagons

Coordinate Plane (graphs)

Know how to graph lines (chart method)

Linear equation: straight line

Quadratic equation: curved. X is squared.

Functions: each x value has one y value and vice versa.

Direct variation: the quotient of x and y is =.

Inverse variation: the product of x and y is =.

Transformations: movements of a figure.

Reflection: flips the image over a line

Rotation: turns the image about a point.

Translation: slides the image.

Dilation: enlarges or decreases the image.

Symmetry:

Line symmetry: if folded on the line of symmetry, the figure on each side will exactly overlap.

Rotational symmetry: if a figure is rotated a certain amount of degrees it looks like the original image.

Point symmetry: 180° rotational symmetry.

Formulas:

Sum of the interior angles of a polygon: $S = (n - 2)180$

Sides of a *right* triangle: $c^2 = a^2 + b^2$

Sides and angles of a *right* triangle: Sine, Cosine and Tangent

Area and Perimeter (add up the sides):

$A = bh$ (Parallelogram, Rhombus, Square, Rectangle)

$A = \frac{1}{2}bh$ (Triangle)

$A = \frac{1}{2}h(b_1 + b_2)$ (Trapezoid)

$A = \pi r^2$ (Circle)

$C = \pi d$ (Perimeter of circle, one rotation of a circle, distance around a circle)