

# Math: Geometry: Reason with Shapes and Their Attributes

## Students: DesCartes Statements:

**Students:** **RIT Above 240:**

- Identifies and names a rhombus

**Students:** **RIT 231-240:**

- Compares polygons by properties

**Students:** **RIT 221-230:**

- Identifies and names a trapezoid
- Identifies and names a quadrilateral
- Compares polygons by properties
- Identifies properties of quadrilaterals
- Identifies the number of edges on rectangular prisms

**Students:** **RIT 211-220:**

- Identifies properties of angles
- Identifies and names a quadrilateral
- Identifies corners (vertices) of cubes
- Identifies and names a rectangular prism
- Predicts and verifies the effects of combining or subdividing basic shapes
- Compares simple plane figures to solid figures (e.g., circle/sphere, square/cube, rectangle/rectangular solid)

**Students:** **RIT 201-210:**

- Identifies and names a parallelogram
- Identifies and names a polygon
- Classifies cubes by their properties (e.g., edges with equal lengths, faces with equal areas and congruent shapes, right angle corners)
- Identifies and names a cylinder

**Students:** **RIT 191-200:**

- Identifies and names a polygon
- Identifies the number of faces on rectangular prisms
- Identifies and names a cylinder
- Identifies and names a sphere
- Sorts 2-D shapes and objects according to their attributes
- Creates a new shape by combining different shapes, or identifies the different shapes that were used to make the original shape
- Identifies position of shapes (e.g., inside, outside, between)

**Students:** **RIT 181-190:**

- Compares squares (larger, smaller)
- Identifies and names multiple shapes (e.g., square, rectangle, triangle, circle)
- Classifies polygons by sides and vertices
- Identifies and names a cube
- Identifies and names a sphere

**Students:** **RIT 171-180:**

- Identifies and names a triangle
- Identifies and names a square
- Identifies and names a rectangle
- Identifies and names a circle
- Identifies and names a cube
- Recognizes geometric shapes in real-world objects
- Identifies spatial sense concepts (e.g., outside, inside, between, over, under, above, below, behind, in front, middle)

**Students:** **RIT Below 171:**

- Identifies and names a triangle, a circle, a square, a circle
- Identifies sides and vertices of polygons
- Identifies and names a cone
- Compares open and closed figures
- Sorts solid figures and objects according to attributes