### Semantics:

* Shapes:
  + Convex
    - Triangle
      * Equilateral
      * Isosceles
      * Right
      * Right Isosceles
      * Scalene
    - Quadrilateral
      * Square
      * Rectangle
      * Rhombus
      * Parallelogram
      * Quadrilateral
    - Pentagon
    - Hexagon
    - Polygon
  + Non-Convex
  + Circles
    - Regular
    - Dashed
    - Semi-Circle
    - Arc
  + Lines
    - Normal
    - Dashed
    - Right-Arrowed
    - Left-Arrowed
    - Arrowed (Arrow on both sides)
  + Special Symbol Semantics
    - Angle, Right angle
    - Equality marks
      * Angle equality
      * Line equality
    - Parallel line symbol
    - Arrows
    - Delimiter marking on line
  + Points
* Association:
  + Label Association
    - Line: Name, Length (Vertices, Points, Junctions)
    - Vertex: Name, Included angle
    - Junction: Name, Included Angle
    - Points: Name
    - Area names
    - Figure names
  + Intersection-Shape Association
  + Lines corresponding to Shape Association (e.g., diagonals for all polygons, radius, diameter, centroid-vertex association triangle)
  + Special-Symbol Association
* Interaction of two shapes:
  + Completely lying inside another shape (e.g., concentric) - no intersections
  + Line-Line:
    - X
    - T
    - V
  + Line-Shape
  + Circle-Circle
  + Circle-Shape:
    - Incircle
    - CircumCircle
    - Shape-Inside circle with at least one vertex touching the circle
    - Circle inside shape with circle touching at least one shape edge
    - Vertex of a shape coincides with center of circle
    - Shape edge is diameter of the circle
  + Shape-Shape:
    - Inscribed
    - Common Line
    - Common Vertex
    - Remaining lines:
      * X
      * T
      * V