

Exam Title: 1206300 Informal Geometry

Courses Assessed by this Exam: Informal Geometry

Key Vocabulary: circle, radius (radii), arc, dilation, translation, rotational symmetry, similar, congruent, collinear, parallel, perpendicular, skewed, ray, line segment, angle, equidistant, trapezoid, regular polygon, origin, transformation, parallelogram, reflection, ordered pairs, center, midpoints, mid-segment, composition, vertex (vertices), coordinate plane, coordinate graph, corresponding side, corresponding angles, perimeter, volume, cone, slant height, semicircular, cylindrical, proportional, reflexive property, scale factor, triangle sum theorem.

Student Tasks:

- Understand why all circles are similar
- Apply given vocabulary to specific scenarios
- Understand the implication of connecting two rays at a common point
- Find coordinates of an image following a rotation, translation, and/or reflection given coordinates/graph of the pre-image
- Identify the types of transformation that has occurred given the points for image and pre-image
- Identify the types of transformation that have occurred that produces given results
- Understand rotational symmetry
- Identify criteria for quadrilaterals to be rotated/ reflected on to themselves
- Use content vocabulary to identify effects of a transformation
- Understand composition of reflections
- Given a pre-image graphically and a transformation; identify the resulting image
- Use definition of congruence in terms of rigid motion to determine if polygons are congruent
- Understand congruent parts of congruent triangles are congruent
- Use definitions of congruence to calculate perimeter
- Use coordinates to compute perimeter of polygons, triangles, and rectangles
- Use coordinates to compute area of triangles and rectangles
- Find of volume of a cone, cylinder, and sphere
- Identify three dimensional objects generated by the rotation of two dimensional objects
- Use similarity criteria for triangles to proof relationships
- Given two figures use definition of similarity and transformations to decide if they are similar
- Use similarity criteria for triangles to solve problems
- Use properties of similarity transformation to establish AA criteria for two triangles to be similar
- Use SAS similarity postulate and AA postulate to proof similarity in triangles