

Some Connections to Justify Constructions (SOL G.4)

- Line segment congruent to a given line segment
 - Circles: Radius (SOL 5.9), Congruent figures (SOL 6.12)
- Perpendicular bisector/Perpendicular from a point on the line/not on the line
 - Properties of quadrilaterals: Diagonals of a rhombus are perpendicular and bisect each other (SOLs 6.13, 7.7, and G.9)
 - Congruent triangles (SOL G.6)
- Bisector of a given angle
 - Congruent triangles (SOL G.6)
- Angle congruent to a given angle
 - Congruent triangles (SOL G.6)
- Line parallel to a given line through a point not on the given line
 - Corresponding angles of lines cut by a transversal (SOL G.2)
- Equilateral triangle/Regular hexagon inscribed in a circle
 - Congruent triangles (SOL G.6)
 - Circles: Chords, inscribed angles, central angles (SOL G.11)
- Square inscribed in a circle
 - Perpendicular bisector construction (see above)
 - Circles (SOL G.11)
 - Properties of quadrilaterals: Diagonals of a square are perpendicular and congruent (SOLs 6.13, 7.7, and G.9)
- Inscribed circle of a triangle
 - Angle bisector construction (see above)
 - Circles (SOL G.11)
- Circumscribed circle of a triangle
 - Perpendicular bisector construction (see above)
 - Circles (SOL G.11)
- Tangent line from a point outside a given circle to the circle
 - Perpendicular bisector construction (see above)
 - Circles: Inscribed angles (SOL G.11)