

Essential Elements: High School: Geometry

Congruence **G.CO**

A Experiment with transformations in the plane. **M.G.CO.A**

- 1 Know the attributes of geometric elements and two-dimensional shapes. **M.EE.G.CO.1**
 - a Know the attributes of points, rays, lines, line segments, perpendicular lines, parallel lines, and angles. **M.EE.G.CO.1.A**
 - b Know the attributes of two-dimensional shapes. **M.EE.G.CO.1.B**
- 2 Not applicable.
- 3 Not applicable.
- 4 Given a geometric figure and a rotation, reflection, or translation of that figure, identify the components of the two figures that are congruent. **M.EE.G.CO.4**
- 5 Given a geometric figure and a rotation, reflection, or translation of that figure, identify the components of the two figures that are congruent. **M.EE.G.CO.5**

B Understand congruence in terms of rigid motion. **M.G.CO.B**

- 6 Identify corresponding congruent and similar parts of shapes. **M.EE.G.CO.6**
- 7 Identify corresponding congruent and similar parts of shapes. **M.EE.G.CO.7**
- 8 Identify corresponding congruent and similar parts of shapes. **M.EE.G.CO.8**

C Prove geometric theorems. **M.G.CO.C**

- 9 Not applicable.
- 10 Not applicable.
- 11 Not applicable.

D Make geometric constructions. **M.G.CO.D**

- 12 Not applicable.
 - 13 Not applicable.
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Similarity, Right Triangles, and Trigonometry G-SRT

A Understand similarity in terms of similarity transformations. M.G.SRT.A

- 1 Not applicable. See M.EE.G.CO.6.
 - 2 Not applicable. See M.EE.G.CO.6.
 - 3 Not applicable. See M.EE.G.CO.6.
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B Prove theorems involving similarity. M.G.SRT.B

- 4 Not applicable.
 - 5 Not applicable. See M.EE.G.CO.6.
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C Define trigonometric ratios and solve problems involving right triangles.
(M) M.G.SRT.C

- 6 Not applicable.
 - 7 Not applicable.
 - 8 Not applicable.
 - 9 Not applicable.
 - 10 Not applicable.
 - 11 Not applicable.
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Circles G-C

A Understand and apply theorems about circles. M.G.C.A

- 1 Not applicable.
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B Find arc lengths and areas of sectors of circles. M.G.C.B

- 2 Not applicable.
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Expressing Geometric Properties G-GPE

A Translate between the geometric description and the equation for a conic section. M.G.GPE.A

- 1 Not applicable.
 - 2 Not applicable.
 - 3 Not applicable.
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B Use coordinates to prove simple geometric theorems algebraically. M.G.GPE.B

- 4 Not applicable.
 - 5 Not applicable. See M.EE.G.CO.1.
 - 6 Not applicable. See M.EE.G.CO.1.
 - 7 Find perimeters and areas of squares and rectangles to solve real-world problems. M.EE.G.GPE.7
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**Geometric Measurement
and Dimension** G-GMD

A Explain volume formulas and use them to solve problems. (M) M.G.GMD.A

- 1 Estimate the volumes of containers, the areas of figures, and the perimeters of figures. Check the estimates using formulas or models. M.EE.G.GMD.1
 - 2 Estimate the volumes of containers, the areas of figures, and the perimeters of figures. Check the estimates using formulas or models., M.EE.G.GMD.2
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B Visualize relationships between two-dimensional and three-dimensional objects. M.G.GMD.B

- 3 Not applicable.
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C Apply geometric concepts in modeling situations. (M) M.G.GMD.C

- 4 Use properties of geometric shapes to describe real life objects. M.EE.G.GMD.4
- 5 Use properties of geometric shapes to describe real life objects. M.EE.G.GMD.5
- 6 Use properties of geometric shapes to describe real life objects. M.EE.G.GMD.6