Iowa Essential Elements for Mathematics

Geometry

Geometry G.G

G-CO. Congruence G.G-CO

A. Supporting Cluster: Experiment with transformations in the plane. G.G-CO.A

1 Know the attributes of perpendicular lines, parallel lines, and line segments; angles; and circles. EE.G-CO.1

4 Given a geometric figure and a rotation, reflection, or translation of that figure, identify the components of the two figures that are congruent. EE.G-CO.4-5

5 Given a geometric figure and a rotation, reflection, or translation of that figure, identify the components of the two figures that are congruent. EE.G-CO.4-5

B. Major Cluster: Understand congruence in terms of rigid motions. G.G-CO.B

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

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

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

G-SRT. Similarity, Right Triangles, and Trigonometry G.G-SRT

A. Major Cluster: Understand similarity in terms of similarity transformations. G.G-SRT.A

1 See EE.G-CO.6-8

B. Major Cluster: Prove and apply theorems involving similarity. G.G-SRT.B

5 See EE.G-CO.6-8

G-GPE. Expressing Geometric Properties with Equations G.G-GPE

A. Additional Cluster: Translate between the geometric description and the equation for a conic section. G.G-GPE.A

1 Not applicable.

B. Major Cluster: Use coordinates to prove simple geometric theorems algebraically. G.G-GPE.B

7 Find perimeters and areas of squares and rectangles to solve real-world problems. EE.G-GPE.7

G-GMD. Geometric Measurement and Dimension G.G-GMD

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A. Additional Cluster: Explain volume formulas and use them to solve problems. G.G-GMD.A

1 Make a prediction about the volume of a container, the area of a figure, and the perimeter of a figure, and then test the prediction using formulas or models. EE.G-GMD.1-3

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3 Make a prediction about the volume of a container, the area of a figure, and the perimeter of a figure, and then test the prediction using formulas or models. EE.G-GMD.1-3

B. Additional Cluster: Visualize relationships between two-dimensional and three-dimensional objects. G.G-GMD.B

4 Identify the shapes of two-dimensional cross-sections of three-dimensional objects. EE.G-GMD.4

G-MG. Modeling with Geometry G.G-MG

A. Major Cluster: Apply geometric concepts with modeling situations. G.G-MG.A

1 Use properties of geometric shapes to describe real-life objects. EE.G-MG.1-3

2 Use properties of geometric shapes to describe real-life objects. EE.G-MG.1-3

3 Use properties of geometric shapes to describe real-life objects. EE.G-MG.1-3

Statistics and Probability G.S-CP

S-CP. Conditional Probability and the Rules of Probability G.S-CP

A. Additional Cluster: Use independence and conditional probability to interpret data. G.S-CP.A

1 Identify when events are independent or dependent. EE.S-CP.1-5

2 Identify when events are independent or dependent. EE.S-CP.1-5

3 Identify when events are independent or dependent. EE.S-CP.1-5

4 Identify when events are independent or dependent. EE.S-CP.1-5

5 Identify when events are independent or dependent. EE.S-CP.1-5