

Geometry

Sample plan - Jane Moe

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Book: *Geometry* by Daniel Alexander, © 2011 *Brooks/Cole, Cengage Learning*, ISBN 978-14390-4790-3

Other student books:

Geometry by Glencoe, © 2018 *McGraw Hill*, ISBN 978-007-903-9941

Geometry by Elayn Martin-Gay, © 2016 *Pearson*, ISBN 978-013-755-4850

Topic	Problem 1	Problem 2	Problem 3
1. Reasoning and proof			
2. Lines, angles, and planes			
2.1 Lines			
2.2 Angles			
2.3 Planes			
3. Congruence			
4. Triangles			

Topic	Problem 1	Problem 2	Problem 3
5. Quadrilaterals			
6. Transformations			
7. Polygons, surface area, and volume			
8. Circles			
9. Analytic geometry			

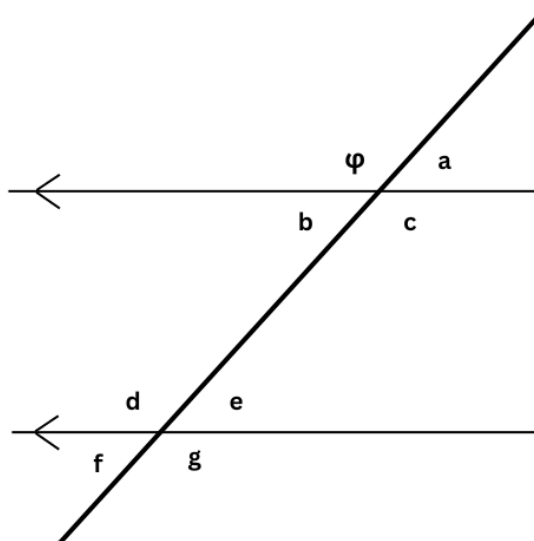
Problems

1. Reasoning and proof

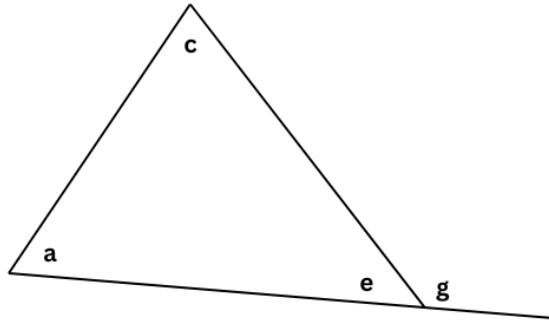
2. Lines, angles, and planes

2.1 Lines

1) Given that angle $\phi = 112^\circ$, find a, b, c, d, e, f, g .



2) Write g in terms of the other angles.



3. Congruence

1. What are the four ways to prove triangle congruence?

4. Triangles

5. Transformations

6. Polygons, surface area, and volume

1. What is the equation for the number of diagonals of a polygon?

2. How many diagonals are in:

a) a triangle?

b) a pentagon?

c) a dodecagon?

3) What is the equation for the sum of the interior angles of an n sided polygon, when $n \geq 3$?

4. What is the sum of the interior angles in:

a) a triangle?

b) a square?

c) a pentagon?

d) a dodecagon?

5) What is the equation for the measure M of each interior angle in an equiangular or regular polygon of n sides, when $n \geq 3$?

6. What is the measure of an interior angle in:

a) a triangle?

b) a square?

c) an octagon?

d) a dodecagon?

7. Circles

8. Analytic geometry