

8.7 Three-Dimensional Figures

Chapter 8: Geometry and Measurement

Name: _____

Date: _____

Class/Period: _____

Problem 8.97 Count faces, edges, and vertices of a cube.

Problem 8.100 Find F , E , V for a pentagonal pyramid.

Problem 8.98 Count faces, edges, and vertices of a triangular prism.

Problem 8.101 Find F , E , V for an octagonal prism.

Problem 8.99 Count faces, edges, and vertices of a square pyramid.

Problem 8.102 A prism has 12 vertices. Identify its base polygon.

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Problem 8.103 A pyramid has 10 edges. Identify its base polygon.

Problem 8.106 Verify Euler's relationship for a rectangular prism.

Problem 8.104 A solid has 6 congruent square faces. Name it.

Problem 8.107 Explain why every prism has an even number of vertices.

Problem 8.105 A solid has 4 triangular faces. Name it.

Problem 8.108 Explain why a pyramid has the same number of faces as vertices.

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Problem 8.109 A convex polyhedron has 10 vertices and 7 faces. Use Euler's relationship to find its number of edges.

Problem 8.111 A pyramid has 9 faces. Find its number of edges and vertices.

Problem 8.110 A prism has 20 vertices. Find its number of faces and edges.

Problem 8.112 Compare an n -gonal prism and n -gonal pyramid. How do their face, edge, and vertex counts differ?