

Name _____ Date _____

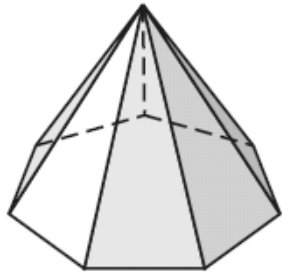
LESSON 12.1

Practice C

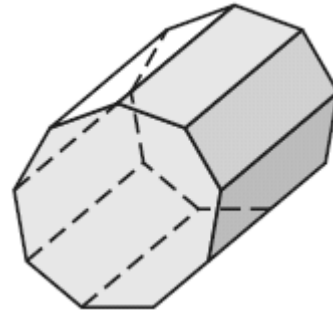
For use with pages 792-801

Determine whether the solid is a polyhedron. If it is, name the polyhedron. *Explain*-your reasoning.

1.



2.



Use Euler's Theorem to find the value of n .

3. Faces: 14
Vertices: 24
Edges: n

4. Faces: 29
Vertices: n
Edges: 81

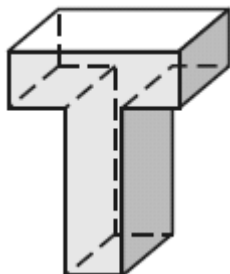
Sketch the polyhedron.

5. Octagonal Prism

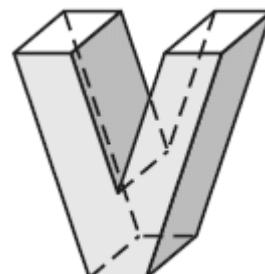
6. Regular Tetrahedron

Find the number of faces, vertices, and edges of each block letter. Check your answer using Euler's Theorem.

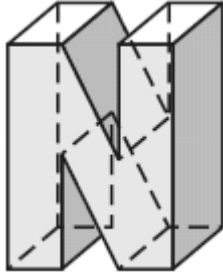
7.



8.



9.

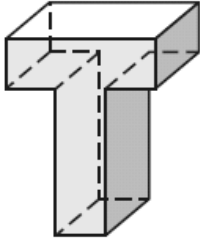


10.

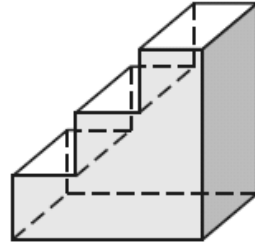


Determine whether the solid is convex or concave.

11.

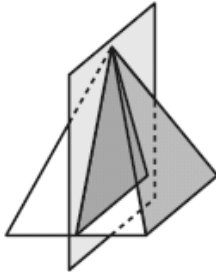


12.

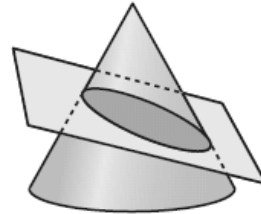


Describe the cross section formed by the intersection of the plane and the solid.

13.



14.



In Exercises 15-18, determine whether the statement is *true* or *false*.

15. Every regular polyhedron is convex.

16. The cross section of an octahedron could be a rectangle.

17. A polyhedron always has more edges than faces and vertices combined.

18. A polyhedron can have exactly 4 faces and exactly 4 edges.