

MATH 106 - QUIZ 2
SPRING 2009

Name _____

Answer all questions with the best possible answer. Point values are indicated.

True - false questions 1 point each.

1. T F Every n -gonal pyramid has $n + 1$ faces.
T F It is impossible for the number of edges, the number of faces, and the number of vertices to all be odd numbers, no matter what polyhedron you have.

2. Complete the following: 8 points.

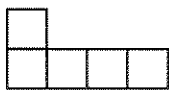
- a. A polyhedron with 12 vertices and 8 faces has _____ edges.
b. A hexagonal prism has _____ edges, _____ vertices, and _____ faces.
c. A pyramid with 60 edges has _____ vertices and _____ faces.
d. A hexagonal prism has _____ lateral edges, _____ edges in all, and _____ vertices.
e. A rectangular pyramid has _____ edges, _____ vertices, and _____ faces.
f. A prism with 9 faces has _____ vertices and _____ edges.
g. A pyramid with 32 edges has _____ faces and _____ vertices.

4. I am a polyhedron with a total of 9 faces. My 8 lateral faces are isosceles triangles.

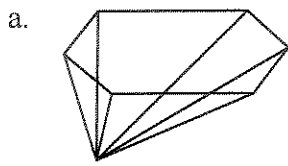
What am I? _____ (2 points)

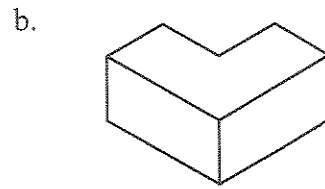
5. On the isometric dot paper, sketch a diagram of a shape that has the following views:

(left) Front: Right: Top: (2 points)

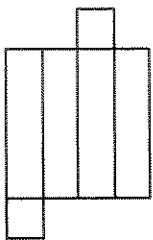


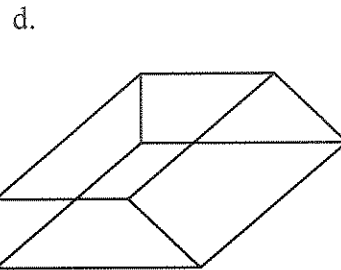
6. Give the best name for the 3-D shapes represented by the following pictures. Angles that look like right angles ARE right angles in the 3D shape. (6 points)





c. (a net)





11. Draw, as carefully as possible, the following figures: (2 points)

a. a right pentagonal prism

b. a triangular pyramid

12. Draw a net for a cube in two different ways. (2 point)

14. How many faces cannot be seen in this drawing of a pentagonal pyramid? (1 point)

