Geometry Monday 3-18-13 Class Notes

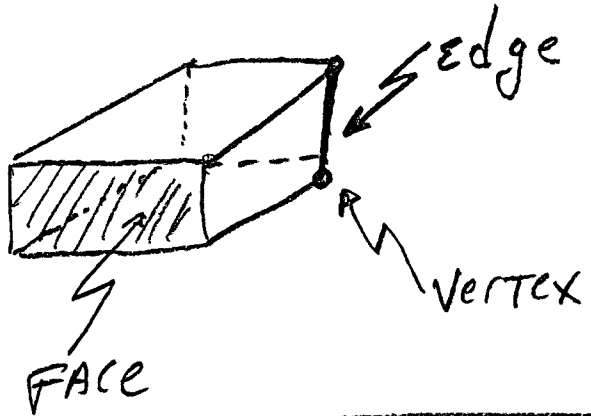
Ch 11-1 Solid Geometry

Polyhedron A solid with flat faces, each face is (sides) a polygon.

No curves!

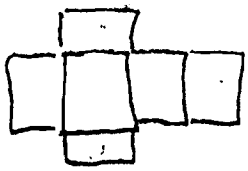
If each polygon is the same regular polygon, you get a regular polyhedron.

(Ex)



Net A flat diagram that can be folded to make a solid.

(Ex)



net for a rectangular prism

Types of Polyhedrons (see pg 742)

PRISM (2 bases) — Two parallel, congruent faces (called bases), connected by faces that are parallelograms. Named after bases, (ex)

triangular prism,
rectangular prism, i.e. a box,
pentagonal prism,
hexagonal prism... etc.

Pyramid (1 base) — 1 polygon base, triangular faces that meet at a common vertex, (ex) (named after base)

triangular pyramid,
rectangular pyramid, (Egyptian)
pentagonal pyramid,
hexagonal pyramid, etc.

Regular Polyhedrons (only 5!)
Called the Platonic Solids (after Plato)

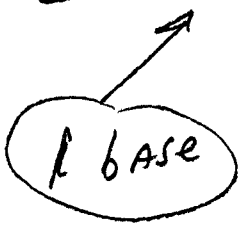
NAME	POLYGON	FACES	POLYGONS AT EACH VERTEX
tetrahedron	equilateral triangle	4	3
cube (hexahedron)	square	6	3
octahedron	equilateral triangle	8	4
dodecahedron	regular pentagon	12	3
Icosahedron	equilateral triangle	20	5

See web sites!

Curved Solids

Cylinder — Two congruent, parallel circular bases, a curved surface that connects the bases.
(Not a polyhedron)

Cone — 1 circular base and a curved surface that connects the base to a vertex.



Homework — Memorize vocabulary
Pg 745 # 1, 4, 5–12,
, 15–18.