Math 114
Geometry Assignment #4

Section 2.4
Problems 7, 23, 25, 27, 31

Michael Brodskiy

graphical figures omitted

7.) Do the following for the given prism.

   a.) Name the bases of the prism.

$$\text{pentagons; ABCDE \& FGHIJ}$$

   b.) Name the lateral faces of the prism.

$$\text{AEJF, EJID, DICH, CHBG, BGFA}$$

   c.) Name the faces that are hidden from view.

$$\text{AFGB, BGCH, DICH, GFJIH}$$

d.) Name the prism by type.

<p align="center">PENTAGONAL PRISM</p>

23.)

BASE	F	V	F + V	E
triangle	5	6	11	9
quad	6	8	14	12
hex	8	12	20	18
n−gon	$n + 2$	$2n$	$3n + 2$	$3n$

25.)

FIGURE	F	V	F + V	E
A	7	10	17	15
B	9	9	18	16
C	8	12	20	18

27.) A polyhedron has 18 edges and 8 faces. Sketch a polyhedron that satisfies these conditions and name the polyhedron you drew.

$$E = 18 \ \& \ F = 8$$
$$F + V = E + 2$$
$$8 + V = 20$$
$$\therefore V = 12$$

<p align="center">see attached for sketch of the EIGHTHEDRON</p>

31.) Describe the cross sections formed when a plane cuts the circular cylinders as shown.

<p align="center">see attached for sketch of cross sections</p>