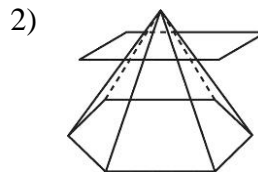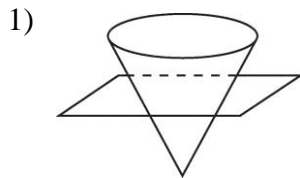# Chapter 11 Review

For the following:
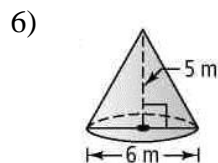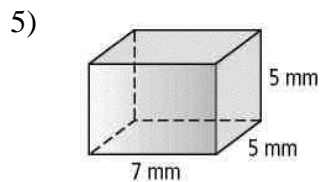a) Identify the name of the figure
b) Identify if it is a polyhedron or not
c) Find the number of faces, vertices, and edges if it is a polyhedron
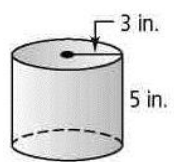d) Describe the cross-section made by the intersecting plane

1)

2)

Use Eulers's formula to find the missing number.

3) Faces: _____   Edges: 24   Vertices: 16
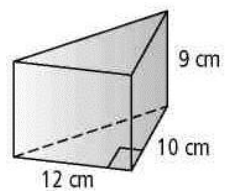
4) Faces: 8   Edges: _____   Vertices: 6

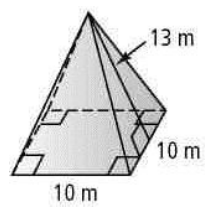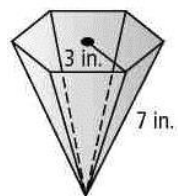Find the volume and surface area of each of the following. Round to nearest 0.1.

5)

5 mm

5 mm

7 mm

6)

5 m

←6 m→

7)

3 in.

5 in.

8)

9 cm

10 cm

12 cm

9)

13 m

10 m

10 m

10)

3 in.

7 in.

11)

4 m
6 m
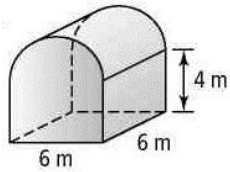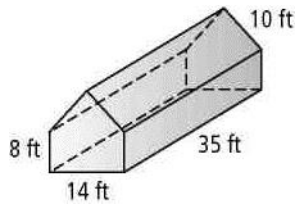6 m

12) A greenhouse has the dimensions shown in the figure. What is the volume of the greenhouse? Round to the nearest 0.1 of a foot.

10 ft
8 ft
35 ft
14 ft

Find the volume and surface area of a sphere with the given radius or diameter. Give each answer in terms of π and rounded to the nearest whole number.

13) $r = 5$ cm

14) $d = 9$ m

The surface area of each sphere is given. Find the volume of each sphere in terms of π.

13) $64\pi\,\mathrm{m}^2$

14) $49\pi\,\mathrm{ft}^2$

15) The surface areas of two similar figures are given. The volume of the larger figure is given. Find the volume of the smaller figure.

S.A. = 160 ft²
S.A. = 250 ft²
$V = 600\ \mathrm{ft}^3$

16) The submarine consists of a hemisphere, a cylinder, and a cone. Find the **volume** of the submarine in terms of π. All measurements are in meters.

5

3

15