Math 10C Assignment 1.5

1. Find the volume of each pyramid.



2. Find the volume of this cone, to the nearest cubic foot.



3. Find the volume of this square pyramid to the nearest cubic inch. (12 in. is the slant height. Use Pythagoras to find the pyramid height)



4. Find the volume of this cone, to the nearest cubic inch.



5. The base of a square prism has a side length 8 cm; it's height is 12 cm. The base of a square pyramid has side length 12 cm; it's height is 17 cm. Which object has the greater volume?

Square prism	Square Pyramid
The has the greater volume.	

6. Both a cylinder and a cone have volume 1525 cubic inches and base radius 7 in. Find the height of each object, to the nearest tenth of an inch.



7. Find the volume of each object, to the nearest square unit.

2 ft.	$SA = \frac{4}{3} \pi r^3$
17.cm	
11 in.	$SA = \frac{2}{3} \pi r^3$ (half a sphere)
5 m	

8. A solid cork ball is covered in gold plating. It has a diameter of 14 cm.

To the nearest cubic centimetre, what is the volume of cork?

9. A spherical fishbowl holds 381 cubic feet of water. What is the diameter of the fishbowl? (hint: to reverse  $r^3$  take a cube root --  $\sqrt[3]{}$ )

$$SA = \frac{4}{3} \pi r^3$$