## Mathematics 1201 <br> Assignment \#2 <br> Pyramids/Cones

1. Determine the surface area of this regular tetrahedron to the nearest square centimetre.

2. Determine the surface area of this right cone to the nearest square metre.

3. The slant height of a right square pyramid is 17 ft . and the side length of the base is 13 ft . Determine its Lateral area to the nearest square foot.
4. A right cone has a height of 15 in . and a base diameter of 8 in . Determine the lateral area of the cone to the nearest square inch.
5. A right rectangular pyramid has base dimensions 8 ft . by 6 ft . and a height of 12 ft . Calculate the surface area of the pyramid to the nearest square foot.
6. The surface area of a right cone is $400.2 \mathrm{~m}^{2}$. The radius of the cone is 6.0 m . Determine the height of the cone to the nearest metre.
7. Calculate the slant height, $s$, of this right square pyramid to the nearest tenth of a centimetre.

8. Calculate the edge length, $l$, of this regular tetrahedron to the nearest tenth of a metre.

9. Calculate the volume of this right cone to the nearest tenth of a cubic metre.

10. A regular tetrahedron has base area $146.4 \mathrm{~m}^{2}$ and height 10.7 m . Determine its volume to the nearest cubic metre.
11. A right rectangular pyramid has base dimensions 9 ft . by 5 ft ., and a height of 12 ft . Determine its volume to the nearest cubic foot.
12. This right square pyramid has a volume of $254.7 \mathrm{~cm}^{3}$. Calculate the side length of its base, $x$, to the nearest tenth of a centimetre.

13. A right pyramid has a base that is a regular hexagon with side length 2.0 cm . The pyramid has a height of 5.3 cm and a base area of $10.4 \mathrm{~cm}^{2}$. Calculate the volume of the pyramid to the nearest tenth of a cubic centimetre.
14. Francis has three empty containers: a right rectangular prism, a right square pyramid, and a right cone. Each container has height 2.0 cm . The prism has base dimensions 1.5 cm by 2.5 cm . The pyramid has base side length 3.4 cm . The cone has base diameter 3.8 cm . Determine the volume of each container to the nearest tenth of a cubic centimetre. Which container has the least volume? Which container has the greatest volume?
