PRE-AP GEOMETRY 3D Dimensional Change

Leave your answers in terms of π and/or rounded to three decimal places.

- 1. Two similar cylinders have lateral areas 81π m² and 144π m². Find the ratios of:
 - a. the heights
 - b. the surface areas
 - c. the volumes

2. Two similar cones have radii of 4 cm and 6 cm. The surface area of the smaller cone is 36π cm². Find the surface area of the larger cone.

3.	Two similar pyramids have lateral areas $8\ ft^2$ and $18\ ft^2$. The volume of the larger pyramid is $108\ ft^3$. the volume of the smaller pyramid.	Find
4.	What is the effect on the volume of a sphere if the diameter is doubled?	