For each problem, show all work. Round to the nearest hundredth. Circle each answer.

1.   Two similar pyramids have slant heights in ratio 9:7. Find the ratio of their surface areas and the ratio of their perimeters.

2.   Two similar cones have base areas in ratio 9:7. Find the ratio of their lateral areas and the ratio of their heights.

3.   A right rectangular prism has dimensions 2 x 3 x 5. A similar prism has surface area 1000. Find the scale factor.

4.   An animal feed trough is 20 feet long. The ends are inverted isosceles trapezoids with bases 2 feet and 4 feet. The overall height of the feed trough is 1 foot. How much wood is required to build the feed trough?

5.   A cone with height 14 is on top of a cube with height 12. The cone touches the edges of the cube. How much wrapping paper is required for this geometrical gift?