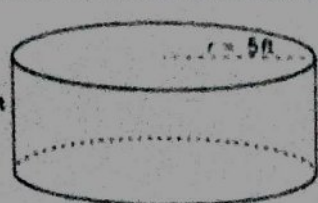
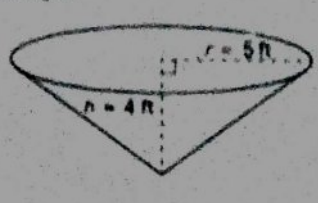
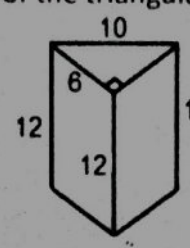
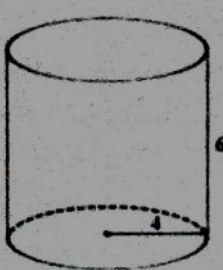
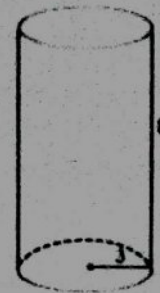
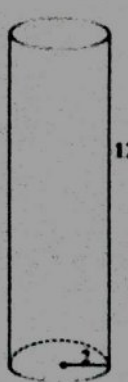


Names _____

EDUC 2551 – Elementary School Math: Geometry

Project 4

1.	The figure shows a right-circular cylinder and a right-circular cone. The cylinder and the cone have the same base and the same height.   a. What is the volume of the cone, in cubic feet? b. What is the ratio of the cone's volume to the cylinder's volume? Ratio = $\frac{314.2}{104.73} = 3$ Volume of cone = $\frac{1}{3} \pi r^2 h$ Volume of cone = $(\frac{1}{3} \times 3.142 \times 5^2 \times 4)$ Volume of cone = $\frac{104.73}{3} \text{ ft}^3$ Volume of cylinder = $\pi r^2 h = 3.142 \times 5^2 \times 4 = 314.2$
2.	Two dolphins are similar in shape. One is 4 ft long; the other is 1 ft long. a. How many times heavier is the larger dolphin? 4 times b. How many times more skin surface does the larger dolphin have? 4 times
3.	Find the total surface area and the volume of the triangular prism shown below. Area of triangle = $\frac{1}{2} \times b \times h = \frac{1}{2} \times 6 \times 8$ Area of triangle = 24 units² Area of rectangle = $8 \times 12 = 96$ Area of rectangle 2 = $12 \times 10 = 120$ Total Surface area = $(24 \times 2) + (96 \times 2) + 120 = 360$  $10 = 6^2 + x^2$ $x = 8$ base of triangle Volume = $\frac{1}{2} \times b \times h \times L$ $= \frac{1}{2} \times 6 \times 8 \times 12 = 288$
4.	In the figures below, the radius and height of each right circular cylinder are given. If w, x, and y represent the respective volumes of the cylinders, order these volumes (w, x, and y) from least to greatest.    Volume w = $\pi r^2 h = 3.142 \times 4^2 \times 6 = 301.632$ Volume x = $3.142 \times 3^2 \times 8 = 226.224$ Volume y = $3.142 \times 2^2 \times 12 = 150.816$ Least to Greatest = y, x, w.