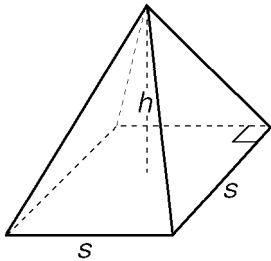Name: _____

CC Geometry Homework

Volume of Pyramids and Cones
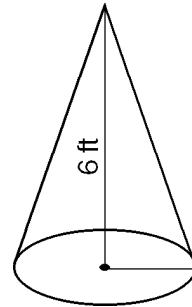
1) If a pyramid has a height of 10 in. and a base with an area of 90 in.^{2}, what is the volume of the pyramid?

3) Find, in terms if π, the volume of a cone whose height is 6 feet and whose radius is 5 feet.

4) What is the diameter of the base of the cone below if the volume is 50π ft^3?

2) If the volume of the pyramid below is 84 yd^3 and the area of the base is 36 yd^2, what is the height of the pyramid?

5)   The Great Pyramid of Khufu is one of the Seven Wonders of the Ancient World. When originally constructed, it had a square base of length 230 meters and a vertical height of 147 meters. What was its volume at the time it was built? [*Show all work.*]

6)   A pile of gravel is in the shape of a cone. The diameter of the base is 34 feet and the height is 16 feet. How many cubic feet of gravel is in the pile? [*Round the answer to the nearest cubic foot.*]

1) 300 in.^{3}

2) 7 yd

3) 50π ft^3

4) 10 ft

5) 2,592,100 m^3

WORK SHOWN: $V = \frac{1}{3}Bh = (\frac{1}{3})(230 \times 230)(147) = 2,592,100$

6) 4,842 ft^3