# P.S. #7.1 - 3D Geometry Day 1

Name: _____ Class: _____

1.)  Find the volume of a cylinder that is 5 m long and 40 cm wide.  Express your answer as an exact answer.

2.)  A perfectly round water balloon is 18 cm in diameter.  How much water can you fill it up with?  Round to the nearest whole number.

3.)  A water pipe has a radius of 5 cm and a height of 7 cm.  What volume of water does it take to fill the pipe?  Round to the nearest thousandth.

4.)  Find the volume of a sphere with a diameter of 12 inches.  Express the answer as an exact answer.

5.) Peter went to Abbott's and bought a huge ice cream cone that is packed to the top with ice cream. The cone is 10 cm high and has a 3-cm opening at the top.

a.) How much ice cream is just in the cone? Round to the nearest tenth.

b.) Because Peter has two favorite flavors of ice cream, he couldn't decide which one to get, so he got a scoop of each. Each scoop has a radius of 3.5 cm. How much ice cream is in each scoop? Round to the nearest tenth.

c.) How much ice cream does he have total to eat? Round to the nearest tenth.

6.) The area of the base of a cone shaped glass is 12 inches and it is 18 inches tall. You fill the glass with soda to the top of the glass. What is the exact volume of the soda?

7.) Many villages have water tanks that they use for farming. Bob's village has a cylinder shaped water tank that has a 4 m radius and a 9m height. What is the volume of the tank to the nearest thousandth?

8.) A baseball has a 45 cm diameter. What is the volume of the contents of the ball? Express your answer as an exact answer.

9.) Solve for q. $4q - 2 = 22 - 8q$

10.) Calculate and express your answer in scientific notation. $\left(4 \times 10^{18}\right) \div \left(2 \times 10^{7}\right)$