Volume – 1

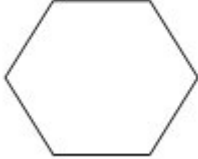|	
1. How much cement is needed to build a sidewalk that is one thousand, one hundred twenty feet long, four feet wide and five inches thick? Round your answer to the nearest cubic foot.	2. If a cube with a 6-in side length is sliced in half what is the surface area of the two pieces?
3. An underground chamber has been discovered in an old mansion. The chamber is thought to have been used for storing ammunition. The dimensions of the chamber are 11 feet by 5 feet by 5 feet. An old ammunition crate was also found in the chamber and it had dimensions of 1 foot by 1 foot by 4 feet. What is the maximum number of ammunition boxes of that size that could be put in the underground chamber?	4. Mr. Bloop has a cylindrical water tank on his farm. It is ten feet long and 2 feet 1 inch in diameter. Water flows out a valve in the bottom of the tank at a rate of 2.6 cubic feet per minute. At that rate, how long will it take to empty the tank when the tank is full?
5. If you have five 2-in by 2-in x 2-in aluminum cubes and superglue them together in a row, what is the surface area of the resulting shape made by the five cubes?	6. A pillar from an ancient city was found buried in the ground. It had a cross-sectional shape like that shown in the figure. If the area of the cross section is twelve and five hundredths square meters, and the pillar was twenty and six tenths meters tall, what was the total volume of stone contained by the pillar?