Fvs 03.07 – college essay

? Part I: Density of Unknown Liquid Calculate the mass of the liquid for each trial. (Subtract the mass of the empty graduated cylinder from the mass of the graduated cylinder with liquid.) Trial 1: Empty graduated cylinder is 25. 5 subtracted from 36. 5 of the liquid and the cylinder combined equals 11 grams of liquid. Trial 2: 36 grams of water and liquid combined minus the 25. 5 of the empty cylinder means equals 10. 5 grams of liquid only. Trial 3: Again 36 grams of liquid and the empty cylinder minus 25. 5 grams of the empty cylinder means that there is again 10. 5 grams of liquid only.

Calculate the density of the unknown liquid for each trial. (Divide the mass of the liquid calculated above by the volume of the liquid.) Trial 1: The density of the liquid is going to be 11 grams divided by the 8. 3 milliliters I got from the lab which means the density of the liquid is 1. 325. Trial 2: In trial two i calculated the mass of the liquid alone was 10. 5 grams this divided by the volume which is 8. 5 will give me the density which is 1. 235. Trial 3: In the last trial I got that the mass of only the liquid was 10. 5 also so this divided by the volume of the liquid 8. will give me the same density as in trial 2 which was 1. 235. Part II: Density of Irregular-Shaped Solid Calculate the volume of the irregular-shaped solid for each trial. (Subtract the volume of the water from the total volume of the water and solid.) Trial 1: In trial one the volume of the water and the solid was 53. 0 and the water only was 48. 5 so if i subtract the volume of both by the water I get 4. 5 which is the density of the object. Trial 2: In trial two for water and solid I got 55. 9 and for water I got 51. 1 so I subtract smaller number from the larger one to get the density of the object which is 4. . Trial 3: In the last trial the combined millimeters of the water and the object was 54. 0 so I need to subtract the volume of the

water alone which is 49. 0 so the density of the object will be 5. Calculate the density of the irregular-shaped solid for each trial. (Divide the mass of the solid by the volume of the solid calculated above.) Trial 1: For the first trial the mass of solid was 38. 267 and the volume I calculated was 4. 5 so 38. 267 divided by 4. 5 equals 8. 503 Trial 2: For trial two themass of the solid is 39. 441 and the mass calculated was 4. 8 so 39. 441 divided by 4. 8 equals 8. 16 which is the density. Trial 3: In the last trial I got 41. 6 as the object's mass and Calculated the volume to be 5, 41. 6 divided by 5 is 8. 32 which is the density. Part III: Density of Regular-Shaped Solid Calculate the volume of the regular shaped solid for each trial. (Multiply the length ? width ? height for each trial to get the volume in the unit cm3.) Trial 1: For trial 1 the length was 5. 2 x width was 3 x height was 2. 5 will equal 39 and now I need to add cm3 so it is 39cm3 Trial 2: For trial 2 length was 5 x width of 4 x height of 3 equals 60 after cm3 is added 60cm3 is the volume.

Trial 3: In trial 3 the length was 4. 5 x the width of 3. 5 x the height of 2 which equals 31. 5 and after the cm3 is added the volume is 31. 5cm3. Calculate the density of the regular-shaped solid for each trial. (Divide the mass of the solid by the volume calculated above.) Trial 1: In the first one the mass was 27 and the volume was 39cm3 so 27 divided by 39 equals 0. 692 which is the density for the object. Trial 2: For trial two the mass was also 27 but the volume was 60cm3, 27 divided by 60 equals 0. 45 which is the density. Trial 3: In the third trial the mass was 27. 5 and the volume was 31. cm3, the equation would have to be 27. 5 divided by 31. 5 equals 0. 873 which is thee density. Questions and Conclusions: How would you determine the proper number of significant figures of a liquid using a graduated

cylinder? (See practice interactive in “ Activity” tab of lesson.) You can only go one more than the cylinders markings. So if your cylinder has markings of 1 mL , then at most you can say like the liquid is at 20. 5 mL. Which would be 3 figures for this. You can give or take 0. 5ml because of the water sticking to the sides. Can just one measurement be considered precise?

Can just one measurement be considered accurate? Explain your answers completely. No just one measurement can not be considered precise or accurate because both of those rely on other measurements to determine if they are accurate or precise. In parts II and III of the lab you used different sized objects in each trial. Compare the density values that you calculated for these items, how do the three trials compare? In the first two trials it was always over 1. 0 but in the last trial it was always less than 0. 99 the density was always more in the first two trials.