

Answer
Job

+3

Tool, Measurement and Safety Test Corrections
Physical Science 9- Mr. Voight

Problem #8 What is the volume of the nut/bolt?

- The mistake I made was not labeling my work. I wrote $90.8 - 88.4 = 2.4$. That could have been grams, letters, inches, feet, etc. I didn't show how I knew my answer was supposed to be in mL.
- I made that error because I was being careless and thought that as long as my answer had a measurement label my work didn't have to; I was wrong. I didn't think labeling work was important and I know to always label everything.
- To find the volume you must subtract the level of water in the graduated cylinder **with** the nut/bolt in it with the level of water in the graduated cylinder **without** the nut/bolt in it.

$$90.8\text{mL} - 88.4\text{mL} = 2.4\text{mL}$$

Answer: 2.4mL

Problem #9 What is the density of the nut/bolt?

- The mistake I made was not showing all of the work needed to correctly solve the problem. I did not show the process of figuring out my answer, therefore there is no proof I actually solved the problem.
- I made the mistake because when I take test I always feel I am in a rush, so I go though all the problems quickly, not always thinking about my work just that I get the answer correct. I continually fail to realize that the work is just as much part of the problem as the solution is.
- In order to find the density of the nut/bolt you must divide the volume of the object (in this case the nut/bolt) by the mass of the object. Since you already have the volume (see problem #8) you just have to find the mass. To find the mass you must weight the nut/bolt on the triple balance beam.

Volume- 2.4mL

Mass- 10.51g

$$\frac{10.51\text{mL}}{2.4\text{g}} = 4.38\text{g/mL}$$

Answer: 4.38g/mL

Problem #11 Go to Mr. Voight and light a Bunsen Burner the proper way

- I made two mistakes on this problem. 1. I didn't turn the gas level on high enough. 2. I held the striker upside-down.
- The only reason for making those 2 mistakes I can conjure up is that I got nervous and was intimidated. When I am doing anything in front of a teacher I automatically get nervous. Also I am not very comfortable with fire, even if I know I'm not in any danger of getting burned I still get intimidated.

- c) The proper way to light the burner
1. Turn the gas on all the way
 2. Hold the striker(the correct way) a few inches above the burner
 3. Squeeze the striker
 4. turn the window so you can see through it

Problem # 15 part a. $262\text{nm} = \underline{\hspace{2cm}} \text{ m}$

- a) The mistake I made was forgetting the power to which *nano* goes to (10^{-9}). Instead of having 262 be divided by 1,000,000,000 I divided it by 1,000,000.
- b) The reason I made this mistake was because I just counted from *nano* to *m*, forgetting about the powers.

c)
$$\frac{262\text{nm}}{1000000000\text{nm}} = \frac{262 * 1\text{m}}{1000000000} = 0.000000262\text{m}$$

Answer: 0.000000262m

Problem #17 What is good science?

- a) My mistake was not being specific enough my definition of “*keeping an open mind*”. I knew what I meant, but I did not explain it thoroughly enough for others to understand it as well.
- b) I made this error because I, at the time, thought that I had the correct reasoning. I thought that good science meant keeping an open mind. Which I now realize is right, yet wrong as well.
- c) Good science is keeping an open mind. An open mind about different ways to do things, and to be able to except what ever answer/ conclusion the tests and research give you. Good science is not “being up for anything.”