

CH 105 Supplemental Instruction

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Sessions: Monday, 1:20-2:20, EB 132

Wednesday, 1:20-2:20, EB 132

Office Hour: Friday, 1:20-2:20, CTL 241C (Academic Success Center)

Part 1: Units of Measurement

1. List the SI Units for the following:

- Length:
- Volume:
- Mass:
- Temperature:
- Time:

2. Summarize 4 rules for determining the numbers of significant figures.

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3. Note the number of sig figs for the following:

- 27
- .00341
- 501.1080
- 12.890
- .000090

4. Write the following numbers in scientific notation:

- 5000
- 1,908,125
- .15
- .0000056
- .0003801

5. Write the following numbers in decimal form:

- 1.2×10^{-3}
- 6×10^2
- 9.023×10^{-6}

- 4E-7
- 7.012E4

6. What does a direct relationship mean? Provide an example.

7. What does an indirect relationship mean? Provide an example.

8. Some sharks require 40 pounds of food per day in order to have enough energy to survive. If a shark requires exactly 40 pounds of food per day, how many grams of food will he have eaten in 3 days? Kg?

9. Write the relationship for density. Is this a physical or chemical property?

10. You have a substance with a density of 9.67 g/mL. What mass in grams of the substance do you have if you have 20 cm³ of that substance?