

Slope; "For Every..."

EHS CA3MIS+ry

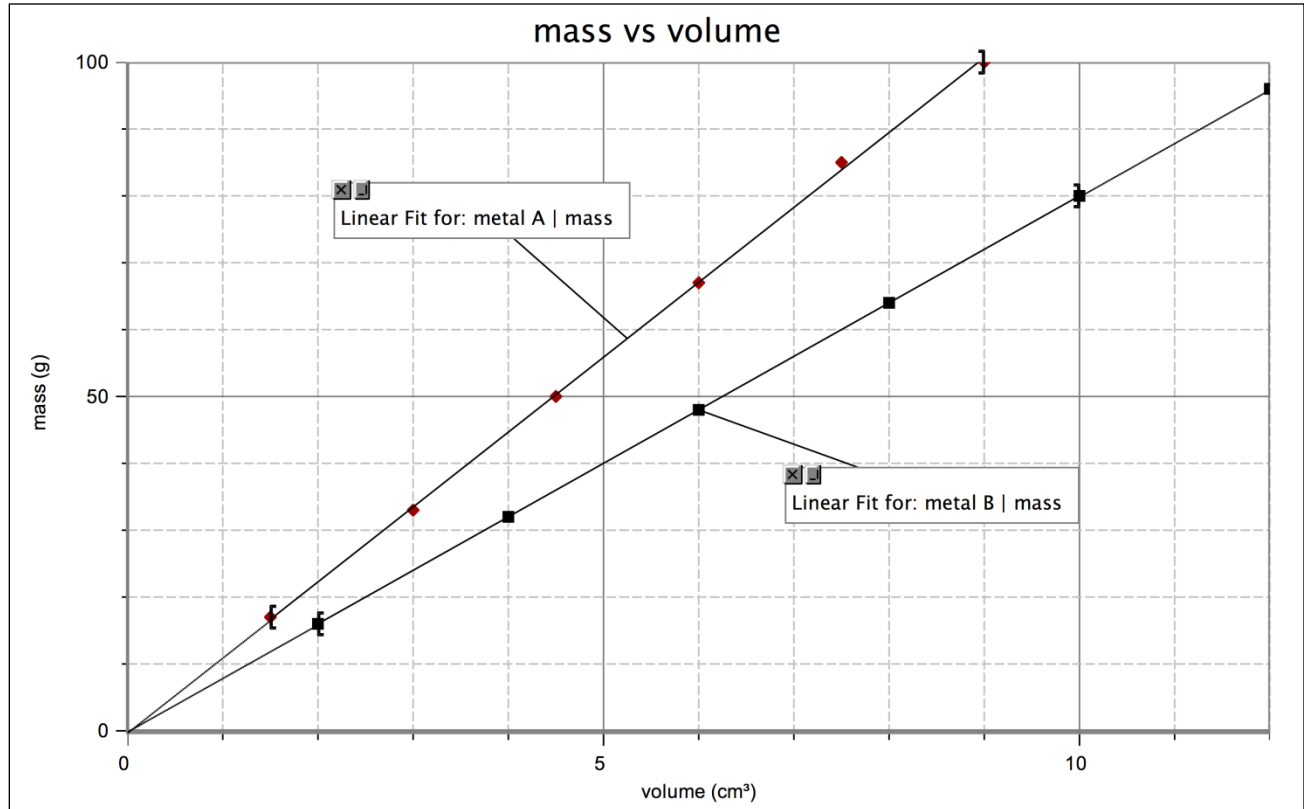
Mr. Genest



Name _____

Date _____

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1) Determine the density of each metal. Show all your work and include appropriate units.

- 2) From the graph, estimate
- a. the mass of 8.0 cm³ of metal A. _____
 - b. the volume of 70 g of metal B. _____
 - c. mark on the graph how you found the answers above.

3) Convert 911.77 kg to mg: _____

- 4) Gold has a density of 19.3 g/cm^3 . A cube of gold measures 4.23 cm on each edge:
- What is the volume of the cube?

 - What is its mass? How many significant figures should you include in your answer and why?
- 5) Alicia's cheapskate boyfriend gave her a ring he claims is 24 carat gold. Alicia is skeptical. After chem class the next day she measures the mass of the ring, finds the volume of the ring by water displacement, and then calculates the density of the ring. Should she treasure the ring as his first truly generous gift to her, or throw it at him the next time he walks by? **Defend your answer.**

DATA:

Mass:	15.28 g
Final volume:	43.7 mL
Initial volume:	42.2 mL
Volume of ring:	_____
Density:	_____

- 6) A student filled a graduated cylinder with water and read the meniscus at 25.8 mL. The student then dropped a solid material into the graduated cylinder and the water level rose to 35.9 mL. If the solid material had a density of 2.99 g/mL , determine the mass of the solid object.
- 7) An object is known to have a mass of 4.145 g. A student makes three measurements and obtains the results; 3.102 g, 3.105 g, and 3.101 g. Are the student's measurements accurate or precise?