

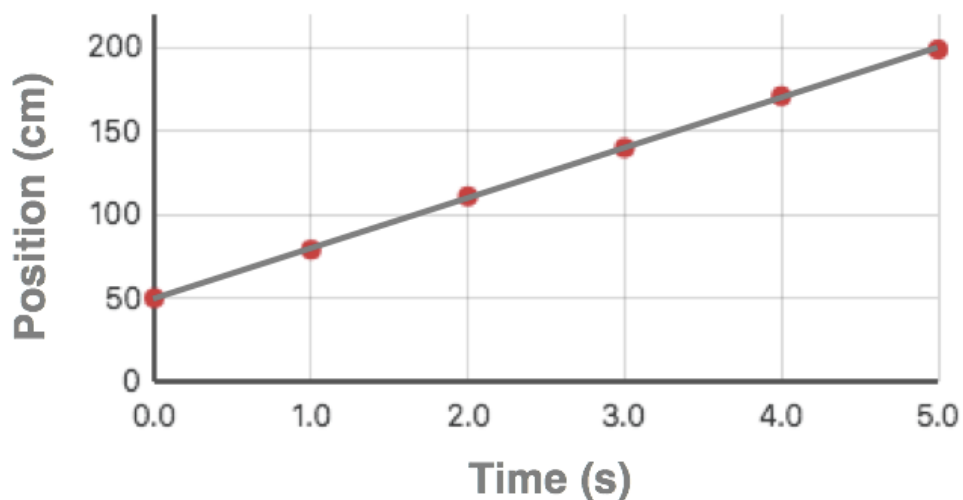
Using Graphs

Objectives:

- I can use the concept of slope to describe the relationship between quantities.
- I can use given data or graphs to extrapolate and interpolate in order to make predictions.

For the following graphs, calculate the **slope** and make a **For Every** statement to describe the relationship between the plotted quantities. Show your work for the slope calculation. **PSYW**

1. The plot below represents the position of a toy car as a function of time.



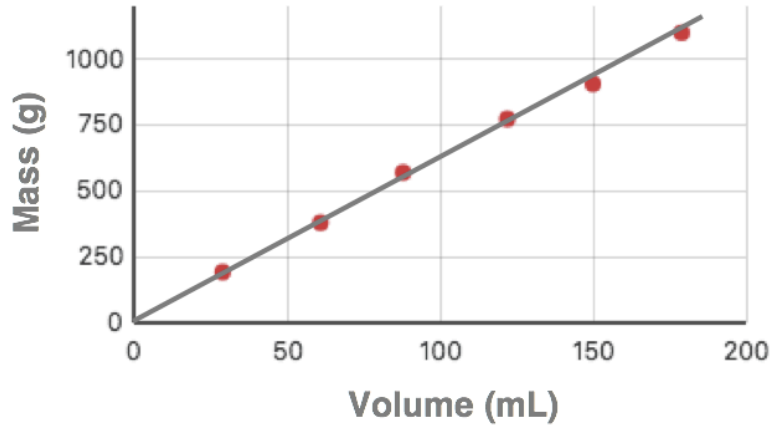
Slope (PSYW):

Units on slope: _____

Complete the **For Every** statement:

For every 1.0 second of time change, the position changes by ...

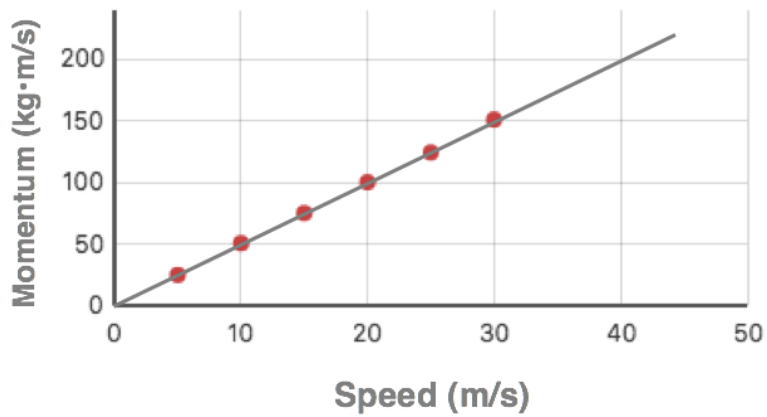
2. The plot shows the mass of an unknown metal as a function of its volume.



Slope (PSYW) with Unit:

For Every Statement:

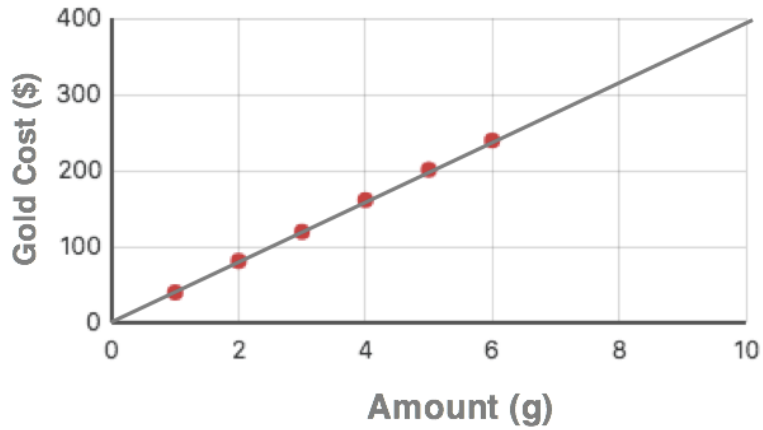
3. The plot shows the momentum of an object as the function of its speed.



Slope (PSYW) with Unit:

For Every Statement:

4. The plot shows the cost of gold as a function of the amount purchased.



Slope (PSYW) with Unit:

For Every Statement:

Prediction:

Use the provided information to predict the cost of

a. ... 7.0 grams of gold: _____

b. ... 8.0 grams of gold: _____

c. ... 10.0 grams of gold: _____

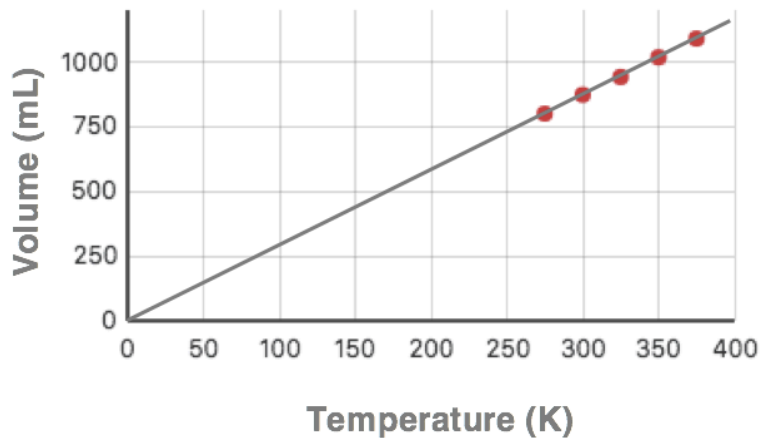
d. ... 2.5 grams of gold: _____

e. ... 12.0 grams of gold: _____

f. ... 20.0 grams of gold: _____

g. ... 6.8 grams of gold: _____

5. The plot shows the volume of a gas as a function of its Kelvin temperature.



Slope (PSYW) with Unit:

For Every Statement:

Prediction:

Use the provided information to predict the volume of the gas....

a. ... a temperature of 400 K: _____

b. ... a temperature of 200 K: _____

c. ... a temperature of 150 K: _____

d. ... a temperature of 600 K: _____

Use the provided information to predict the temperature at which the gas ...

e. ... occupies a volume of 250 mL: _____

f. ... occupies a volume of 400 mL: _____