Name: _____

Date: _____

Scientific Investigation Skills Review
SNC2P

Part 1: Science Safety

1. What does WHMIS stand for?

_____

2. What does MSDS stand for?

_____

3. Identify the following WHMIS symbols:

Symbol	Meaning	Symbol	Meaning
			
			

4. When should you wear your safety glasses?

_____

5. What should you <u>not</u> wear during a chemistry lab?

_____

6. Where should your lab stool be during a chemistry lab?

_____

7. What should you do in the event of an accident?

_____

Part 2: Lab Equipment

1. Name the following pieces of lab equipment:

_____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

2. Which piece of lab equipment would you use for:

reacting small quantities? _____

measuring volume? _____

swirling liquids? _____

3. To control the height of a Bunsen burner flame, turn the _____.

For a hotter (blue) flame, you should open the _____ by turning the _____.

The hottest part of the flame is the _____.

Part 3: Units of Measurement

1. In SI, what is the base unit for each of the following physical quantities?

   distance _____

   time _____

   mass _____

2. What is the name of each of the following metric prefixes, and what factor of 10 do they represent?

Prefix	Name	Factor
k		
c		
m		
μ		

3. Convert:

   (a) 1.5 kg to g _____

   (b) 35 cm to m _____

   (c) 0.25 m to mm _____

4. Convert:

   (a) 12 in to cm, given that 1 in = 2.54 cm

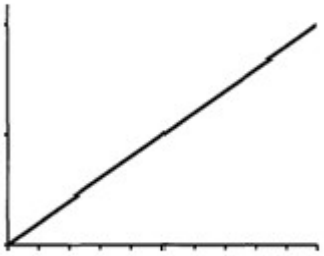
$$12\,\text{in} \times \left(\frac{\qquad}{\qquad}\right) =$$

   (b) convert 160 lb to kg, given that 1 kg = 2.2 lb:

$$160\,\text{lb} \times \left(\frac{\qquad}{\qquad}\right) =$$

Part 4: Graphing

1. Graphs must be numbered and _____.
2. The axes must be labelled with the _____ (including _____).
3. Points are plotted in pencil with a _____ around each sharp dot.
4. A _____ or _____of best fit is drawn through the points. (Do NOT connect the dots.)
5. Describe the relationship illustrated by each of the graphs below:

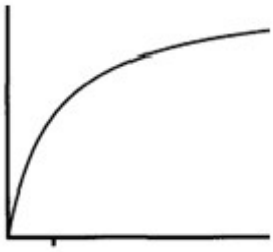


As one variable increases, the other

_____

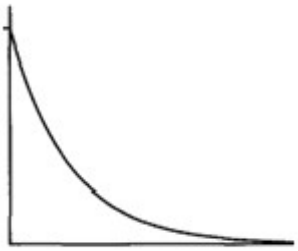
As one variable increases, the other

_____



As one variable increases, the other

_____



As one variable increases, the other

_____

Part 5: The Scientific Method

1. In an experiment, the variable changed by the experimenter is called the _____variable.
2. The variable for which the experimenter measures the response is called the _____ variable.
3. All other variables are kept the same and are called _____ variables.