Name
Period

Hypotheses and Variables Practice Sheet

Definitions:
(X axis) Independent variable – the cause of the change.
(Y axis) Dependent variable- the effect, (what changes as a result of X)

PART A: Questions 1 – 5 only!
**In each of the following statements underline the independent variable and circle the dependent variable.

1. Increasing the temperature will increase the rate of rusting

2. The longer a pier piling is left in ocean water the greater the number of barnacles will be on it.

3. The higher the blood cholesterol level the greater the risk of heart disease.

4. The higher the education level of women the older they are when they have their first child.

5. The greater the use of birth control the lesser the incidents of pregnancy.

PART B: Use a separate sheet of graph paper for # 6 and 7.
**For the following hypothesis and experimental data collected, answer both A & B by graphing the data.

A) What is the relationship between the variables being tested? i.e. positive direct, negative(inverse) or neutral.

B) Is the hypothesis correct or incorrect? Justify you answer.

NOTE: make sure your graph has properly labeled axis with units, and a title!

6. **The effects of caffeine will be greater on the fetus's heart rate than the effects on the mother's heart rate.**

Caffeine (milligrams)	Mom's Heart rate (bpm)	Fetus' Heart rate (bpm)
0	75	120
100	80	140
200	85	150
300	100	170

* Respond to questions A & B for hypothesis #6 here:

7. **The height of a person's jump is higher as the human calf size increases.**

LJHS Men's Calf Size (cm)	Vertical Jump (cm)
34	47
33	50
50	42
45	45

*Respond to questions A & B for hypothesis #7 here:

8. Graph the data shown ordering the % from lowest to highest.

Country	% of STUDENTS WHO HAVE AT LEAST ONE TATOO
Britain	65
USA	89
Japan	2
Germany	40

What kind of graph was used for #8 and WHY?