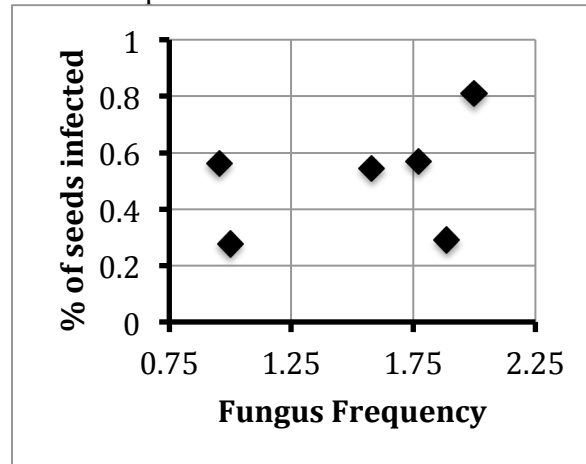


Name: _____

Part 1. Fungus in Panama. Last summer, Mr. Stump did an experiment in Panama, to study how seeds can defend themselves against fungus. He exposed seeds to 6 different species of fungus, and saw what fractions of the seeds were infected by each fungus. He wanted to test the following hypothesis:

Hypothesis 1: Common fungi are better able to infect seeds (so the slope is positive).

Here are the results of Mr. Stump's research:



Here, "Frequency" means how common a fungus is (so, 2 means very common, and 1 means rare).

Questions:

1) Take a guess: What do you think each point represents?

2) Please draw a best-fit line through the plot.

3) What is the y-intercept of your best-fit line?

4) Chose 2 points on your best-fit line. What are they?

5) What is the slope of your best-fit line?

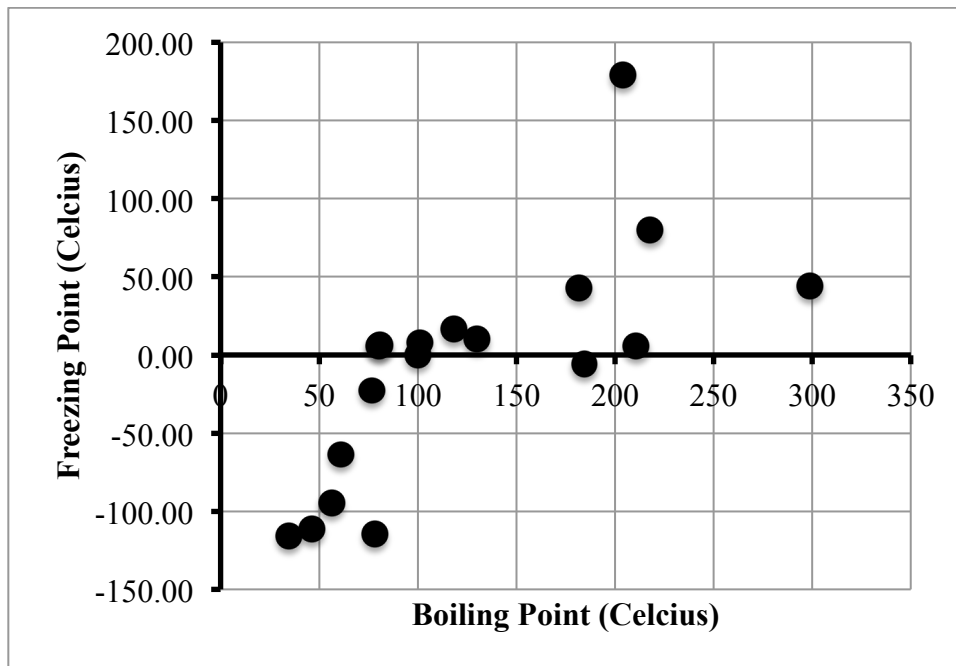
6) Is the slope positive or negative?

7) Is the hypothesis supported or not? Why?

Part 2. Melting and Boiling Temperature. You would like to test the following hypothesis:

Hypothesis 2: Chemicals with a high freezing temperature will also have a high boiling temperature (so there should be a positive slope).

Wikipedia lists the boiling and freezing temperatures of many chemicals. It looks like this:



Questions:

- 1) Please draw a best-fit line through the plot.
- 2) What is the y-intercept of your best-fit line?
- 3) Chose 2 points on your best-fit line. What are they?
- 4) What is the slope of your best-fit line?
- 5) Is the slope positive or negative?
- 6) Is the hypothesis supported or not? Why?