

Name: \_\_\_\_\_

Identifying Variables – Practice 1

*Read the following experimental scenarios and identify the variables.*

1. It is January and Haley, Sarah and Becky are tired of having cold feet while waiting for the school bus to come in the morning. They decide to design an experiment to test the effectiveness of wool, cotton and nylon as insulators. They fill identical bottles with 200 ml of water at 100°C and place inside each sock. They take the temperature of the water after 20 minutes.

Independent Variable:

Dependent Variable:

Constants:

2. A group of middle school students were given a short course in speed-reading. The instructor was curious if a monetary incentive would influence performance on a reading test taken at the end of the course. Half the students were offered \$5 for obtaining a certain level of performance on the test, the other half were not offered money.

Independent variable:

Dependent variable:

Experimental group:

Control group:

3. A social psychologist thinks that people are more likely to conform to a large crowd than to a single person. To test this hypothesis, the social psychologist had either one person or five persons stand on a busy walking path on campus and look up. The psychologist stood nearby and counted the number of people passing by who also looked up.

Independent Variable:

Dependent Variable:

4. After reading the latest issue of *Organic Compost Quarterly*, Michael, Brad and Darius have decided to investigate the effect of fish sticks on plant growth. They plan on thawing fish sticks and then aging them for various lengths of time before using them as compost to promote the growth of eggplants. Because decomposition is necessary for release of nutrients, the Alexs' hypothesized that older fish stick compost will produce taller eggplants.

Michael, Brad and Darius will grow four flats of eggplants (25 plants/flat) for 5 days. The eggplants will then be fertilized as follows:

- Flat A: 450 g of 3-month-old fish stick compost
- Flat B: 450 g of 6-month-old fish stick compost
- Flat C: 450 g of 12-month-old fish stick compost
- Flat D: 0 g of fish stick compost

The eggplants received the same amount of sunlight and water each day. At the end of 30 days the students will record the height of the plants (cm) and then throw a party featuring fish sticks.

Independent Variable:

Levels of Independent Variable:

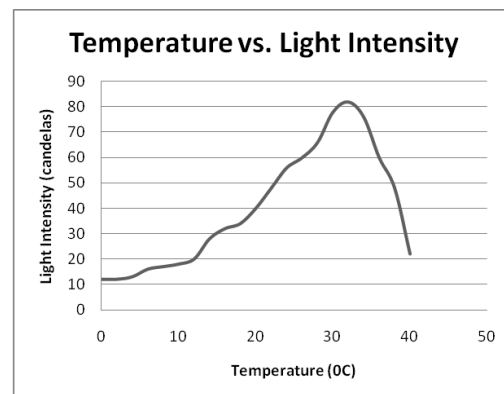
Dependent Variable:

Constants:

5.

Identify the IV in the graph:

Identify the DV in the graph:



6.

Mouse Number	Food	Week 1 Mass Gain	Week 2 Mass Gain	Week 3 Mass Gain
1	Rice	6 g	8 g	14 g
2	Grain	5 g	4 g	9 g
3	Corn	8 g	4 g	12 g
4	Mixture	12 g	8 g	20 g

Identify the IV in the chart:

Identify the DV in the chart: