

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_

### **Unit 1 Topic #4 – Graphing Practice**

*Directions: Read each scenario below and examine the accompanying data table. Determine what kind of graph would be the best option for the data that you are given. Then, answer each set of questions.*

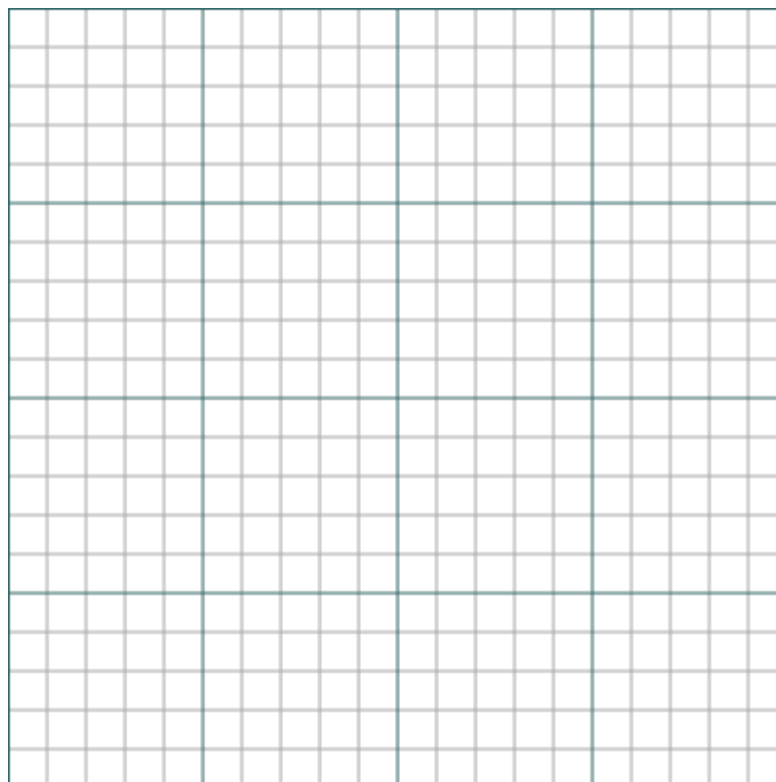
1. Baby chickens, like all baby birds, require a constant source of food. As chicks grow, more energy is required for daily activities, and their food requirements increase. The following data table reports the average food eaten by a group of 10 chickens over a 5-day period.

**Baby Chicken Food Consumption**

Day	Food Consumed (g)
0	0.0
1	1.0
2	3.2
3	6.5
4	10.6
5	15.4

Questions:

1. Identify the independent variable:
2. Identify the dependent variable:
3. What type of graph will you be making?
4. After creating the graph; estimate how much grain the chicks will eat on day 6.



2. Elodea, a water plant commonly found in aquariums, gives off bubbles of oxygen when placed in bright light. Students in a biology class noted that if a light were placed at different distances from the plant in an aquarium, the rate of bubble production varied. The following data table shows the average results from several trials.

*Elodea* Bubble Production

Distance from Light (cm)	Bubble Production Rate (bubbles/min)
10	40
20	20
30	10
40	*
50	3

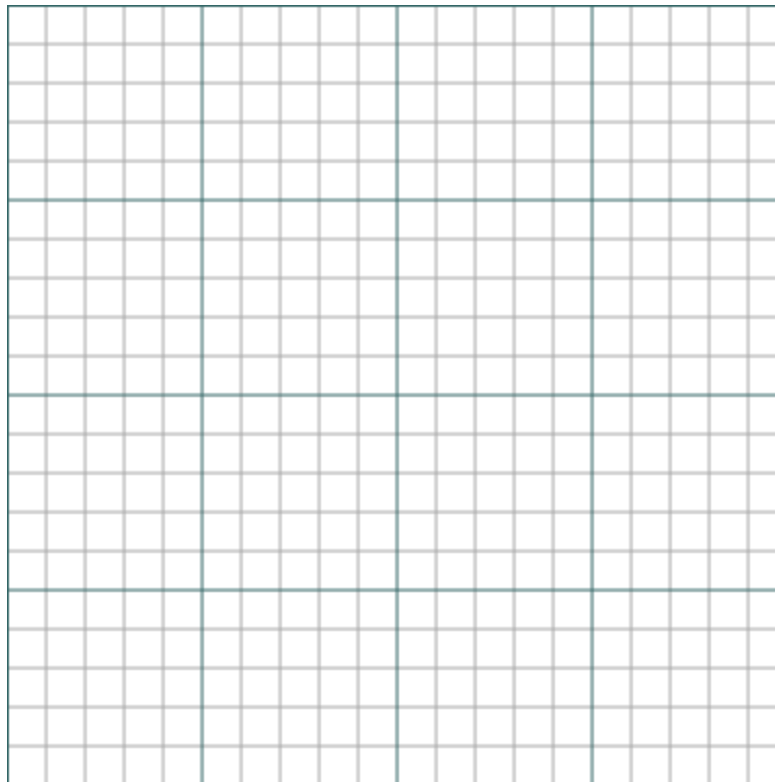
\*They forgot to record this distance!

Questions

1. Identify the independent and dependent variables.
2. Estimate the O<sub>2</sub> production at 25 cm.
3. At 35 cm?
4. What type of relation does the graph represent?

Questions:

1. Identify the independent variable:
2. Identify the dependent variable:
3. After you have graphed; Estimate the O<sub>2</sub> production at 25 cm.
4. After you have graphed; what would be a good estimate for the missing data at 40cm?



3. A team of scientists wanted to test the effects of temperature on the germination rate of pinto beans. They placed three sets of 100 pinto bean seeds in temperature-controlled chambers: Chamber A was set at 15° C, chamber B at 20°C, and chamber C at 25°C. Their results are shown in Table 1 below:

Germination Rates of Pinto Beans

Day	% Germination (15° C)	% Germination (20° C)	% Germination (25° C)
0	0	0	0
2	2	10	10
4	10	30	50
6	20	40	80
8	20	60	90
10	35	70	90

Questions:

1. Identify the independent variable:
2. Identify the dependent variable:
3. Compare and contrast the growth rate of pinto beans at the different temperatures.
4. Summarize the results from the experiment.

