LAB ____: GRAPHING

For each research project described below, draw the appropriate graph (line vs. bar), label all axes, create a title, and answer the questions.

1. A study was conducted on the feeding preferences of slugs. Specimens were fed a variety of food sources and data were collected on number of grams of each type of food eaten. Construct the appropriate type of graph and make a conclusion on food preference.

Food Source	Food Eaten (grams)
lettuce	4.0
mushroom	8.2
dog food	0.0
spinach	6.5
apple	8.6
peach	5.4
orange	1.0

a. What type of graph will you use? _____

b. What is the dependent variable? _____

c. What is the independent variable? _____

d. Which food source was favored by slugs the most, and how do you know that?

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e. Give your graph a title.

f. Why was this graph drawn as a bar graph? _____

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2. Baby chickens require a constant source of food. As chickens grow, more energy is needed for daily activities. The following table gives the grams of food eaten by a chick over a 5-day period. Construct the appropriate type of graph and predict the amount of food that would have been eaten by the chick on the 3rd and 6th day.

Number of Days	Food Eaten (grams)
0	0.0
1	1.0
2	3.5
3	??
4	8.5
5	11.0
6	??
7	16.5

NOTE: You must use the GRAPH — not any calculations — to determine the missing data.

a. What type of graph will you use? _____

b. What is the dependent variable? _____

c. What is the independent variable? _____

d. Complete the data table above for Day 6 and Day 7.

e. Give your graph a title.

f. Why was this graph drawn as a line graph? _____

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3. A study was made of endangered birds to see if their populations were increasing by being protected from hunters. Scientists went out into the field every ten years and counted the number of Whooping Crane, California Condor, and Black Swans they found in their spring feeding grounds. Review the data table below and draw an appropriate graph with labeled lines and axes and a title.

	Years		
Bird Species	**1950**	**1960**	**1970**
Whooping Crane	24	41	78
California Condor	76	43	20
Black Swan	56	58	57

a. What type of graph will you use? _____

b. What is the dependent variable? _____

c. What is the independent variable? _____

d. Write a title on your graph.

e. By interpreting the graph, make a conclusion about the Whooping Crane population.

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f. By interpreting the graph, make a conclusion about the California Condor population.

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g. By interpreting the graph, make a conclusion about the Black Swan population.

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4. A study was undertaken to measure the effects of smoking on the rate of development of lung cancer in both men and women. Construct the appropriate type of graph and make a conclusion from the data

Age Group	Annual Death Rate from Lung Cancer (per thousand)		
	Heavy Smokers (>1 pack/day)	**All Smokers**	**Never Smoked**
35-44	2.5	2.0	0.0
45-54	10.2	6.5	0.0
55-64	22.5	16.5	2.0
65-74	60.0	23.0	4.2
75-84	85.0	25.2	6.4

a. What type of graph will you use? _____

b. What is the dependent variable? _____

c. What is the independent variable? _____

d. Give your graph a title.

e. By interpreting the graph, make a conclusion about the effect of smoking.

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