Graphing

For each research project described below, draw the appropriate graph (line vs. bar) *on graph paper*, 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 was collected on the number of grams of each type of food was eaten. Construct an appropriate graph and make a conclusion on food preferences:

|  |  |
| --- | --- |
| 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 |

1. What type of graph will you use to represent this data?

Explain WHY you will use this type of graph:

1. What is the dependent variable?
2. What is the independent variable?
3. Which food source did the slugs like the best?

Explain HOW you came to this conclusion:

1. 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 an appropriate 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 you make – not any calculations, etc. – to determine the missing data!!*

1. What type of graph will you use to represent this data?

Explain WHY you will use this type of graph:

1. What is the dependent variable?
2. What is the independent variable?
3. How much food was eaten on day 3? On day 6?

Explain HOW you determined those amounts:

1. 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 10 years and counted the number of Whooping Crane, Condor, and Black Swans they found in their spring feeding grounds. Review the data table below and draw an appropriate graph with labeled lines, axes, and title:

|  |  |  |  |
| --- | --- | --- | --- |
|  | Number of Birds Counted per Year | | |
| Bird Species | 1950 | 1960 | 1970 |
| Whooping Crane | 24 | 41 | 78 |
| Condor | 76 | 43 | 20 |
| Black Swan | 56 | 58 | 57 |

***NOTE****: Your graph will have MULTIPLE lines – be sure to use a key & label carefully!*

1. What type of graph will you use to represent this data?

Explain WHY you will use this type of graph:

1. What is the dependent variable?
2. What is the independent variable?
3. By interpreting your graph, make a conclusion about the Whooping Crane population:
4. By interpreting your graph, make a conclusion about the Condor population:
5. By interpreting your graph, make a conclusion about the Black Swan population: