

Creating Data Tables

Data tables help you organize experimental data into a table so that you can interpret it more easily. When making a data table it is important to include the following information:

1. Title : Describes what the table represents, located centered and above the data table
2. Columns : Each should have a heading that lists the data to be compared (**Independent Variable**)
3. Rows : Each should list the specific characteristic being compared (**Dependent Variable**)
4. Input the data within the appropriate grid lines
5. Use a ruler. Be neat and legible.

Directions :

- A. Create a neat and legible data table for each set of data using the given information. (Use a ruler.)
- B. Include an appropriate title.
- C. Label your columns and rows.
- D. Input the data correctly into the table.
- E. Include units in your headings when necessary.
- F. Answer the question given in each experiment using the data table that you produce.

Example.

Jason's experiment compared the pH of rainfall in Ka'u and Kohala. He took samples of rainfall from each area once a month and measured the pH for each sample. Create a table that organizes the data that he collected. (10 pts)

Ka'u: Jan : 5, Feb : 3, Mar : 7, Apr : 7, May : 4, Jun : 3, Jul : 2, Aug : 4, Sep : 4, Oct : 6, Nov : 7, Dec : 5

Kohala: Jan : 9, Feb : 7, Mar : 8, Apr : 6, May : 4, Jun : 5, Jul : 5, Aug : 6, Sep : 7, Oct : 7, Nov : 8, Dec : 9

Question : Rainfall from which location has the lowest average pH ? _____ (2 pts)

1. Cliff did an experiment that monitored the temperature of his grandma's green house in degrees Fahrenheit ($^{\circ}$ F) . He measured the temperature every week in March and April. Create a table that organizes the data that he collected. (10 pts)

Week # 1 : 76° , 2: 82° , 3 : 76° , 4 : 80° , 5 : 85° , 6 : 82° , 7 : 79° , 8 : 78°

Question : Which month had the highest average temperature? _____ (2 pts)

2. Brandon conducted an experiment that investigated the effect of radiation on the growth of kukui. He exposed one plant to a low level of radiation, one to a moderate level and one plant was not exposed at all. Brandon measured the height of the plant in centimeters once a week for 3 months. Create a table that organizes the data that he collected. (10 pts)

Moderate level: 1:0, 2:0, 3:1, 4:1, 5:1, 6:1, 7:1, 8:2, 9:2, 10:2, 11:3, 12:4

Low level: 1:0, 2:1, 3:1, 4:2, 5:2, 6:3, 7:3, 8:3, 9:4, 10:4, 11:5, 12:6

No radiation: 1:0, 2:1, 3:2, 4:2, 5:3, 6:4, 7:5, 8:5, 9:6, 10:8, 11:9, 12:11

Question: Did radiation affect plant growth? _____ (2pts)

3. Sharon's experiment investigated the effectiveness of 2 oil spill clean-up techniques. She simulated oil spills and attempted to clean them up using a detergent and a bacteria solution. She completed 3 trials for each technique and recorded the percentage of oil that was cleaned up by each technique. Create a table that organizes the data that he collected. (10 pts)

Detergent: 1 – 10%, 2 – 10%, 3 – 15%

Bacteria: 1 – 25%, 2 – 40%, 3 – 20%

Question: Which technique was more effective at cleaning up the oil spill? _____ (2pts)

4. Erin investigated the rainfall in Keaukaha and Waiakea Uka. She collected and measured rainfall at each location every week for a month and a half. Create a table that organizes the data that he collected. (10 pts)

Keaukaha: 1 – $\frac{1}{8}$ in, 2 – $\frac{1}{8}$ in, 3 – $\frac{1}{16}$ in, 4 – $\frac{1}{8}$ in, 5 – $\frac{1}{4}$ in, 6 – $\frac{1}{4}$ in

Waiakea Uka: 1 – $\frac{1}{4}$ in, 2 – $\frac{1}{2}$ in, 3 – 1 in, 4 – $\frac{3}{4}$ in, 5 – $\frac{1}{4}$ in, 6 – $\frac{3}{4}$ in

Question: Which location had the highest average rainfall? _____ (2pts)