

Graphs

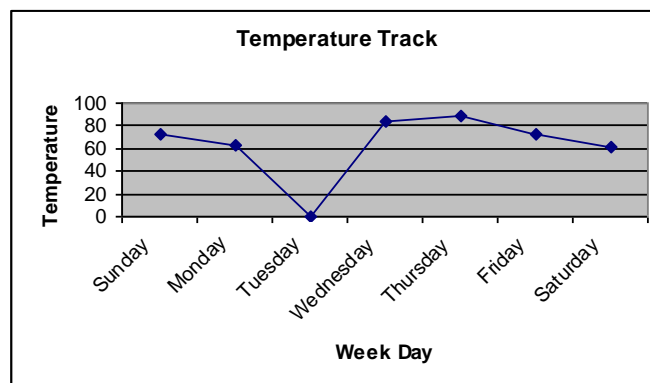
A graph is a diagram or a chart that shows numbers or quantities in a way that can be easily read. It is a way to present data in a visual manner to simplify numbers and relations between them. With information that has a lot of numbers or figures, which are known as quantitative data, graphs are often found to be the best and easiest way to view the information or the numerical data, especially for the purpose of comparison. Graphs are effective tools to present data in a quick manner.

To make a chart, minimally two different columns or rows or lists with data are needed. There are different types of graphs:

- 1) **Line Graph:** is usually used to show changes over time. For example if you measure the temperature every day of the week, you could use a line graph to chart it. Another example for using line graphs is if you want to track how much you grow each month.

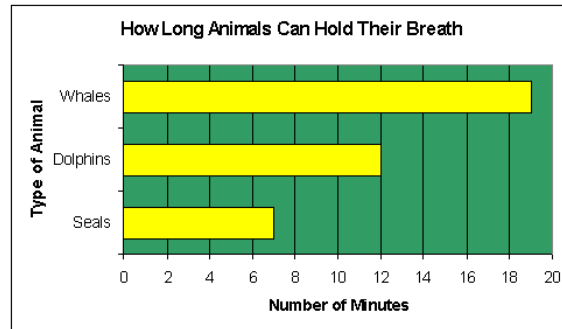
DAY OF WEEK	TEMPERATURE
Sunday	71.8° F
Monday	62.2°F
Tuesday	82° F
Wednesday	84.6° F
Thursday	88° F
Friday	73.1 °F
Saturday	61.7 °F

One column or list is taken to represent the X axis and one is taken to represent the Y axis. The 'X-axis' is the horizontal line and in this example is represented by the week day. The 'Y-axis' stands for the vertical line and in this example represents the temperature. Most line graphs will have a name for the X and Y Axes so that a person looking at the chart can immediately identify what the numbers represent.

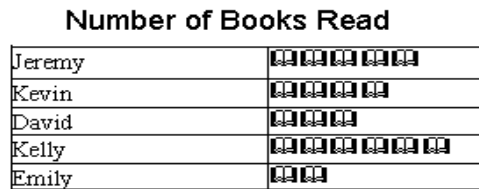


Graphs (Cont'd)

- 2) **Bar Graph:** uses bars to show data. The bars can be presented vertically (up or down) and horizontally. In the example below, it presents data by using horizontal bars.

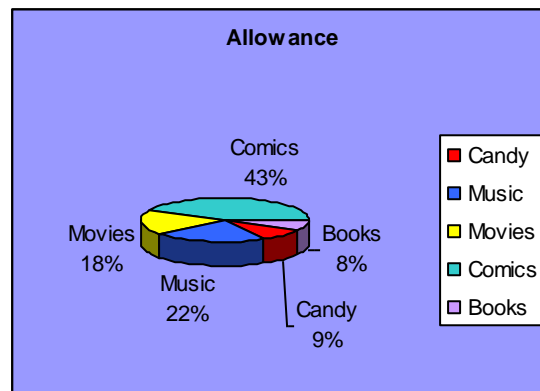


- 3) **Pictograph:** uses rows of little symbols or pictures instead of bars.



Each ☞ stands for 5 books.

- 4) **Pie Chart:** this type looks like a pie or cake and it is divided into different pieces. It is used to show how you can divide a whole in to different parts. Usually to make it easier to understand, each piece has a different color.



Graphs Questions

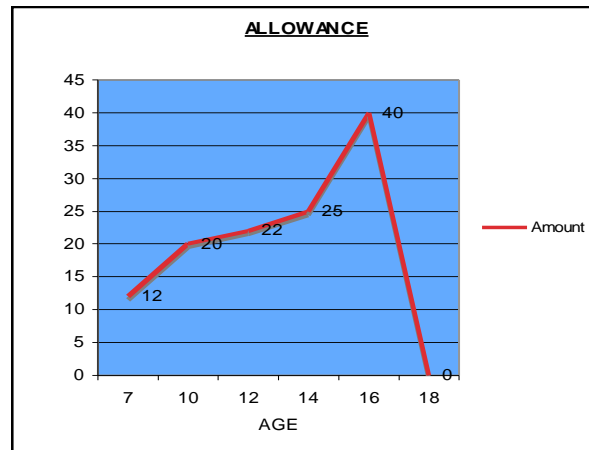
Multiple Choice:

1. Graphs are:
- Charts used to show relations between numbers
 - An effective tool to present numbers and figures in a quick way
 - Diagrams that present quantitative data
 - All of the above

Matching:

- | | |
|---|--|
| <p>_____ 3. Line graph</p> <p>_____ 4. Pie Chart</p> <p>_____ 5. Pictograph</p> | <p>a. Uses rows of little symbols instead of bars.</p> <p>b. Is usually used to show changes over time.</p> <p>c. Is used to show a division of a whole between parts.</p> |
|---|--|

Identify the following three about the graph below:



X-Axis: _____

Y-Axis: _____

Type of Chart: _____

Graphs Answers

Multiple Choice:

1. Graphs are:

- a. Charts used to show relations between numbers
- b. An effective tool to present numbers and figures in a quick way
- c. Diagrams that present quantitative data
- d. **All of the above**

Matching:

 b 3. Line graph

a. Uses rows of little symbols instead of bars.

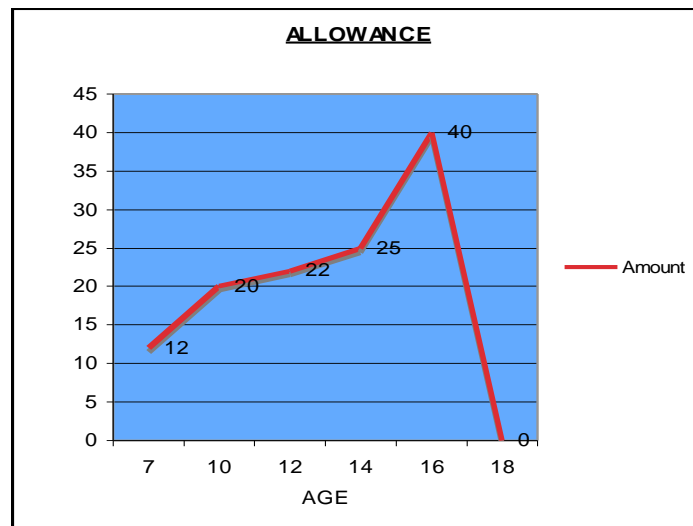
 c 4. Pie Chart

b. Is usually used to show changes over time.

 a 5. Pictograph

c. Is used to show a division of a whole between parts, like a cake.

Identify the following three about the graph below:



X-Axis: **Age**

Y-Axis: **Amount**

Type of Chart: **Line Graph**