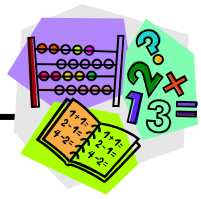
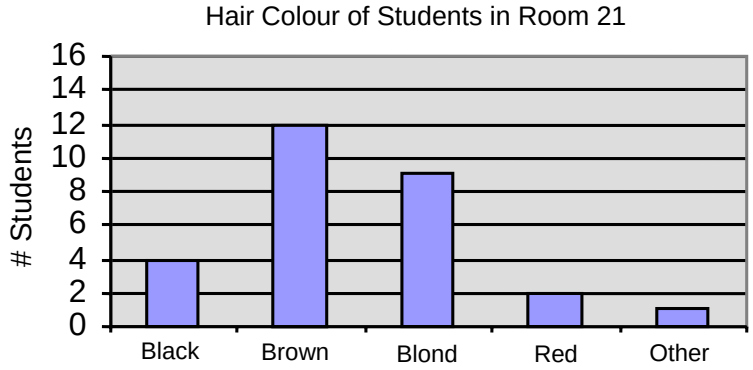
Bar Graphs



Bar graphs are used to compare information or data that does not change. They give a snapshot of information in one period of time.

Examples of information represented in bar graphs include: heights of mountain ranges, lengths of rivers, numbers of different types of trees in a forest and the mass of large mammals.

The graph below is a bar graph. Bar graphs are used to represent quantities or amounts.



Examine the graph carefully to fully understand what it represents. Follow these steps.

Step-By-Step Procedure	Example
1. Look at the title to see what the graph is about.	Hair colour of students in room 21.
2. Look at the *x*-axis (↔) to see what is identified.	The different types of hair colour (black, brown, blond, red and other).
3. Look at the *y*-axis (↕) to see the numbering system.	The numbers go up by 2's.
4. Read each bar and follow the bar to the top to see what number it represents.	The bar representing black hair goes up to 4. Therefore, 4 students have black hair.
5. Repeat this procedure with each bar.	12 students have brown hair. 9 students have blond hair. 2 students have red hair. 1 student has hair that is not black, brown, blond or red.

The range of data is the least and greatest quantities represented. The range is used to determine the maximum number needed for the *y*-axis.

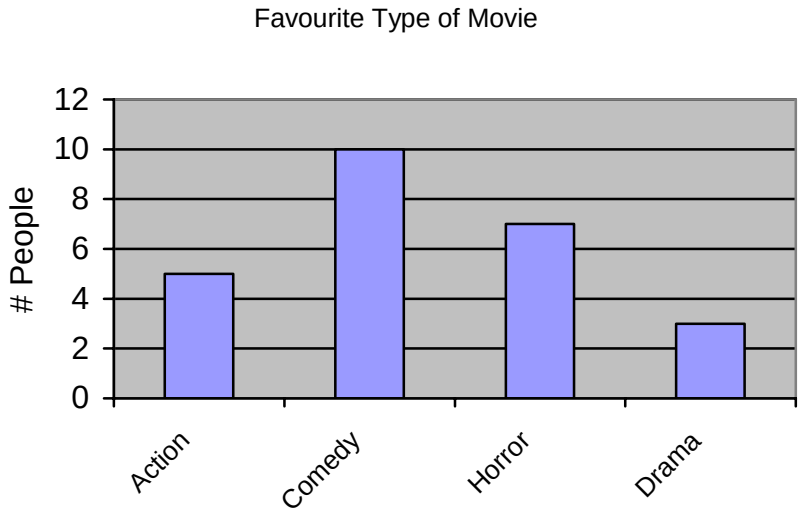
For example, the range of data for hair colour of students is from 1 to 12. One represents the fewest number of students, 12 represents the greatest number of students.

Conclusions can be drawn from graphs. For example, conclusions from the bar graph about hair colour include:

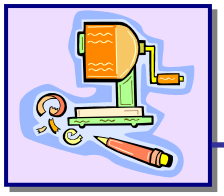
- 4 students have black hair.
- 12 students have brown hair.
- 9 students have blond hair.
- 2 students have red hair.
- 1 student has hair that is not black, brown, blond or red.
- There are 28 students in the class.

Example

Erin surveyed family members and friends about their favourite types of movie. Her findings are represented on the bar graph below.

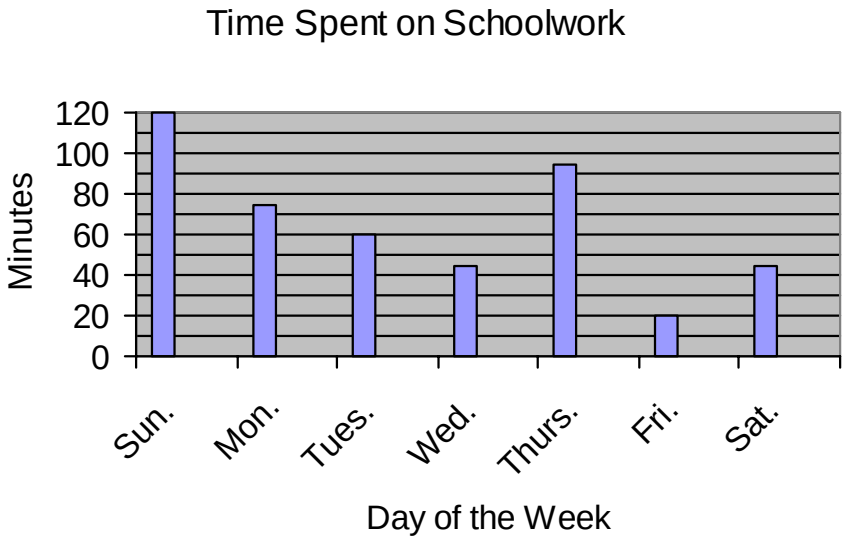


To interpret this graph, ask the following questions.
What is the bar graph about? Favourite movie types
How many people selected action movies? 5
How many people selected comedies? 10
How many people selected horror movies? 7
How many people selected drama movies? 3
How many people were surveyed in total? 25 people
What is the range of data? 3 to 10
Does the graph show a change of favourite movie selections over time? No



Practice: Reading and Interpreting Bar Graphs

Homework! Completing homework usually results in improved marks. The bar graph below represents the number of minutes Gerald spent on schoolwork each night during one week. Look at the bar graph and answer the questions that follow.



1. What is the topic of the graph?

2. What information is on the x-axis?

3. How much time did Gerald spend doing schoolwork on:
   a) Sunday?
   b) Wednesday?
   c) Friday?
   d) Saturday?

4. On which day did Gerald spend:
   a) the most time on schoolwork?
   b) the least amount of time on schoolwork?

5. Why do you think that Gerald spent more time doing schoolwork on Sunday than on any other day of the week?

6. How many minutes did Gerald spend doing schoolwork in total? Convert this number into hours and minutes.

7. Write a conclusion statement about the graph.

8. Estimate the amount of time that you spent on schoolwork last week. Keep track of the number of minutes that you spend on schoolwork for the next three days. Display your information in a bar graph.