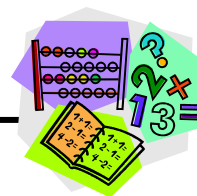


Organizing Data Using Charts, Tallies and Lists



Charts, tallies and lists are often used to collect and/or organize data before placing the information on a graph.

Charts

Charts can be used to organize survey responses. Charts are a good way to organize information when the amount of information is limited.

Example

A survey is conducted with 10 people. They are asked which season is their favourite.

Person	Spring	Summer	Winter	Fall
1	✓			
2		✓		
3		✓		
4			✓	
5				✓
6				✓
7		✓		
8		✓		
9		✓		
10	✓			
Totals:	2	5	1	2

Tallies

A tally chart is useful when numbers, rather than individual people, are important. The information above could be placed on a tally chart.

	Spring	Summer	Winter	Fall
Numbers:				
Totals:	2	5	1	2

Conclusions can be drawn from the charts. Of the 10 people surveyed:

- 5 people prefer summer.
- 1 person prefers winter.
- The same number of people prefer spring and fall.

Lists

Lists can be used to organize and display information, such as answers to questions.

Example

For a survey, 10 people were asked to name their favourite sport. The information is recorded in a list.

Name of Person	Favourite Sport
Alex	Hockey
Jessica	Badminton
Amandeep	Figure Skating
François	Basketball
Miguel	Lacrosse
Kumar	Hockey
Lynette	Volleyball
Sophia	Cross-country Skiing
Ben	Lacrosse
Cherise	Soccer

Frequency Tables

Example

For a survey, 25 people were asked about their favourite winter Olympic sport. A frequency table with rank ordering is used to display the data.

Frequency means the number of times something happened. In the table below, the frequency of how many times someone said a sport is shown.

Rank order lists the responses in order—the most responses to the least.

Favourite Winter Olympic Sport in Rank Order		
Winter Olympic Sport	Tally	Frequency
Downhill Skiing		13
Figure Skating		12
Aerial Skiing		8
Cross-country Skiing		6
Speed Skating		4
Luge		2

Look at the tally column of the frequency table.

Each | represents 1.

When you see |||||, this means that there are 5.

Here is another frequency table displaying information about the favourite activities of teenagers.

Favourite Activities of Teenagers		
Activity	Tally	Frequency
Watching television		12
Talking on the telephone		8
Surfing the Internet		10
Doing arts and crafts		3
Participating in sports		5
Reading for pleasure		7

Rank order:

Watching television, surfing the Internet, talking on the telephone, reading for pleasure, participating in sports and doing arts and crafts.



Practice: Organizing Information with Charts, Tallies and Lists

1. With a classmate, list a variety of questions to help interpret the survey data. Answer the questions and compare your answers.
2. Visit a number of different stores in a shopping area. Ask an individual in each store to tell you which is the busiest time of day for their store: mornings, afternoons or evenings. Organize your information in a chart and compare with other students.

What does this information tell you? Can you conclude who spends the most time in the mall? During which part of the day are the stores the busiest? Would this information be better represented on a graph? Explain why or why not.

3. Select a partner and brainstorm survey questions that you could ask other people. Design an instrument to collect the data, such as a list or tally chart. Display the data on a bar, line or circle graph. Topics may include:
 - favourite musical artist/group
 - favourite cars and other vehicles
 - job search information
 - hobbies.