Get Ready

Work With Sets of Numbers

It is helpful to be able to visualize numbers when solving problems.

A set of three different whole numbers is ordered from smallest to largest. The sum of the smallest and largest numbers is 13. The middle number is odd. The smallest number is 5. What are the three numbers?

Make a diagram to help solve this problem:

Draw a space for each number. ■ ■ ■

The smallest number is 5. 5 ■ ■

The sum of the smallest and largest numbers is 13.
So, the largest number is $13 - 5 = 8$. 5 ■ 8

Since the numbers are ordered from smallest to largest and the numbers are all different, the middle number is 6 or 7. The middle number must be odd.
So, it must be 7. 5 7 8

The three numbers are 5, 7, and 8.

1. In a set of three different whole numbers, the largest number is 10. The sum of the smallest and largest number is 18. What are the three numbers?

2. The following numbers of cell phones were sold from Monday to Friday at a local phone store:
32, 37, 24, 26, 33

a) Arrange the numbers from smallest to largest.

b) Subtract the smallest number from the largest number. What is the difference?

c) What is the sum of the five numbers?

3. In an international snowboarding Big Air competition, Canadian Neil Connolly finished sixth. Five judges gave him the following scores out of ten:
8.0, 7.5, 7.0, 7.9, 8.1

a) Arrange the scores in order from lowest to highest.

b) In the competition, the highest and lowest scores are removed. Why do you think this is done? What is the sum of the remaining three scores?

Frequency Tables

A **frequency table** is used to organize survey or experimental data.

Jerry surveyed the students in his class about their favourite activity last Saturday afternoon. In the frequency table shown, seven of the students chose "Watch a movie."

Saturday Afternoon Activity	Tally	Frequency
Watch a movie	𝍸 ||	7
Play a sport	𝍸 |||	
Go shopping	𝍸	
Visit friends	𝍸	
Other	|||	

4. a) Copy and complete the frequency table for Saturday afternoon activities.

b) Which activity was the least popular?

c) Which activity was the most popular?

d) How many students were surveyed?

5. The number of siblings for each student in Kim's class is recorded below.

2	5	0	4	2	3
2	0	0	3	2	1
0	5	3	0	5	1
1	5	2	1	6	6
4	3	7	3	7	2

a) Organize the responses from the 30 students in a frequency table.

Number of Siblings	Tally	Frequency
0	𝍸	5
1		
2		

b) What is the most likely number of siblings in a family? What is the least likely number of siblings in a family?

c) Conduct a similar survey of the students in your class. Are the results similar to the given data? Explain.

Interpret Data in Tables

A table is a useful way to display and organize large quantities of data.

6. The following table shows the percent of Canada's Aboriginal people who live in each of the ten provinces.

Province	Percent	Province	Percent
Newfoundland and Labrador	1.9%	New Brunswick	1.7%
Nova Scotia	1.7%	Prince Edward Island	0.1%
Québec	8.1%	Ontario	19.3%
Manitoba	15.4%	Saskatchewan	13.3%
Alberta	16.0%	British Columbia	17.4%

a) In which province does the smallest percent of Aboriginal people live?

b) Which two provinces contain the same percent of Canada's Aboriginal people?

c) What is the sum of the percents in the table?

d) The answer to part c) is less than 100%. The remaining Aboriginal people live in the three territories. What percent of Canada's Aboriginal people live in the three territories?