

How many people live in a Canadian household?



This activity allows you to investigate differences in the three measures of central tendency (mean, median and mode). It also allows you to consider the effects of sample size on each of these measures.

In this activity, you will answer the question “How many people live in a Canadian household?”

- From the *Census at School* website, acquire a random data sample of 10 people. To do this, click on “[Data and results](#)” in the left menu bar and follow the link to the “Random data selector.”
- From this sample, determine the mean, median and mode of the number of people in a Canadian household.
- Enter this information on the chart below.
- Repeat, using a new sample each time for sample sizes of 50, 100, 150, and 200.
- Finally, choose a sample size of your own for the last column.

	Sample size					
	10	50	100	150	200	_____
Mean						
Median						
Mode						

- When your table is complete, answer the following questions based on your observations:

1. Are any of the measures of central tendency affected by sample size? If so, which one(s) and how?

2. In the chart below, describe both the advantages and the disadvantages of describing data in terms of each of the three measures.

Measure	Advantages	Disadvantages
Mean		
Median		
Mode		

3. If someone asked you how many people live in a Canadian household, which measure would you use to answer their question? Why? Discuss your results with another group.

Contributed by Florence Glanfield and Janelle Tang, University of Saskatchewan.