

Statistics Work

1. Create a frequency distribution and histogram for each of the following using the data from Stats Canada:

- a) Annual average precipitation (mm) in Canada
- b) Annual average precipitation (mm) in international cities
- c) Number of wet days in international cities

Questions 2 to 6 are based on the following information.

The pulses of 30 people were taken for 1 minute and recorded. These are the results:

66	79	53	81	84	76	76	67	64	83
92	56	67	77	91	61	71	86	73	87
71	67	71	81	86	62	77	91	72	68

- 2 Why is it hard to spot the trends in the data as it appears?
3.
 - a) Make a frequency distribution table for the above data including a cumulative frequency column. Start with 50.5-55.5 as your first interval.
 - b) Construct a histogram based on your frequency distribution.
4. Use your graph to answer each question:
 - a) In which interval does the most common pulse occur?
 - b) In which interval does the least common pulse occur?
5. What percentage of the people have a pulse over 85.5?
6.
 - a) If you record the pulse for 300 people, how many would you expect to have a pulse in the interval 75.5-80.5? Give reasons for your answer.
 - b) What assumptions are you making?

Questions 7 to 11 are based on the following information.

An English class had the following grades on a test (out of 100).

26	63	73	82	32	73	35	63	56	87
40	51	55	43	53	70	43	92	64	75
46	64	23	67	52	28	76	56	67	

7. Start with the interval 20.5-30.5. Create a frequency distribution.

8. a) Create a histogram.
b) Which interval has the greatest frequency?
9. a) What percentage of the class received an A (80% or better)?
b) What percentage of the class failed (under 50%)?

10. The same class wrote a second test. These are their marks.

66	62	14	41	45	89	59	43	67	37
31	65	50	43	53	57	54	84	68	74
61	54	34	70	45	64	76	70	65	

Repeat questions 8 and 9 for this set of marks.

11. Compare the two histograms created.
- a) What differences are there?
b) What similarities are there?
c) What information do the differences indicate to the teacher?