

SHARP

Worksheet 19: Representing Data

Grade 8 Mathematics

Learners were asked in a survey, to choose their favorite beverage. The results are as follows:

Still water	Sparkling water	Cooldrink	Energy drink
3	8	19	25
Tea	Coffee	Milkshake	Fruit juice
2	16	2	5

- 1) Represent the data above as a bar graph.
- 2) Represent the data above in a Pie-chart.
- 3) Explain the difference between a bar graph and a histogram.

Use the grouped data below to answer the following questions.

A new speed camera was installed outside your school. The traffic department recorded the following data:

Speed in km/h	Frequency (number of cars)
$30 \leq x < 40$	25
$40 \leq x < 50$	38
$50 \leq x < 60$	62
$60 \leq x < 70$	58
$70 \leq x < 80$	18
$80 \leq x < 90$	12
$90 \leq x < 100$	6

- 4) Based on the data, what do you think the speed outside the school is?
- 5) If 60km/h is the speed limit, what percentage of drivers went over the speed limit?
- 6) Represent this data as a histogram.

A group of learners went on a 9-hour hike in the Drakensberg Mountains. They recorded the temperature hourly during their hike.

Time	Temperature in °C
06:00	12
07:00	11
08:00	13
09:00	15
10:00	18
11:00	19
12:00	21
13:00	24
14:00	23
15:00	21

- 7) Represent this data as a broken line graph.
- 8) Based on the data, when do you think the hikers should rest? Substantiate your answer with logical reasoning.