

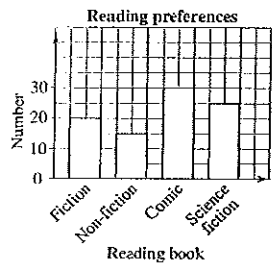
**Data representation**

*All Multiple Choice*

- 1 Which one of the following data sets is not discrete?
- A Shoe sizes of a group of Year 9 girls
  - B Mass (in kg) of the Year 9 girls
  - C Number of subjects studied by the Year 9 girls
  - D Age (in years) of the Year 9 girls.

- 2 Data representing the amount of TV watched each day for a month can be classified as:
- A continuous and qualitative
  - B continuous and quantitative
  - C discrete and qualitative
  - D discrete and quantitative

Questions 3 and 4 refer to the following graph.

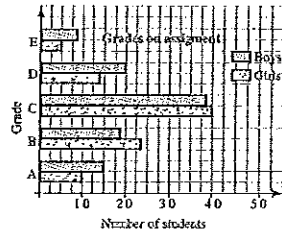


- 3 The favourite type of reading book is:
- A fiction
  - B non fiction
  - C comic
  - D science fiction
- 4 The number of people surveyed is:
- A 40
  - B 60
  - C 90
  - D 100

Name: \_\_\_\_\_

Questions 5 and 6 refer to the bar graph drawn below

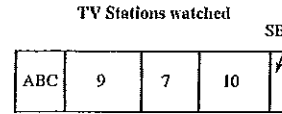
The graph below shows the grades A–E achieved by students on an assignment.



- 5 How many students achieved a grade A?
- A 10
  - B 15
  - C 20
  - D 25

- 6 Which grades were achieved more by boys than by girls?
- A A, D and E
  - B B and C
  - C A and B
  - D C, D and E

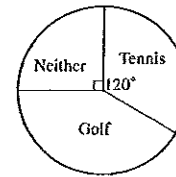
- 7 The divided bar graph shows the TV station watched by a group of Year 8 students at 7.30 pm on a Monday night.



- If there were 200 students surveyed the number who watched Channel 9 was:
- A 14
  - B 28
  - C 56
  - D 100

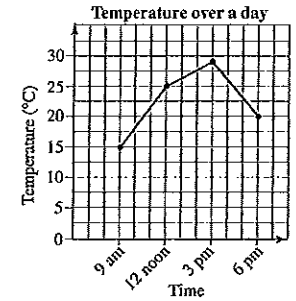
Questions 8 and 9 refer to the graph below.

Sports played by Year 8 students



- 8 The angle that represents the people who play golf should be:
- A 90°
  - B 120°
  - C 135°
  - D 150°
- 9 If there are 216 students in Year 8 how many students play golf?
- A 72
  - B 90
  - C 144
  - D 150

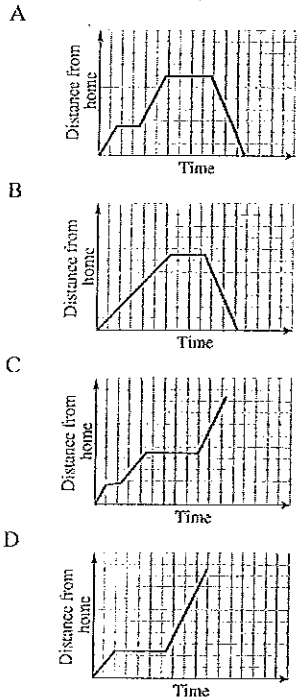
Questions 10 and 11 refer to the following graph.



- 10 The maximum temperature for the day was:
- A 32°C
  - B 29°C
  - C 25°C
  - D 17°C
- 11 At what time did the minimum temperature occur?
- A 6 pm
  - B 3 pm
  - C 12 noon
  - D 9 am

- 12 Tracey drives for 1 hour then rests for an hour before driving for 2 hours to reach her destination. Tracey remains at her destination for two hours before driving straight home.

Which of the travel graphs could represent this journey?



Questions 13 and 14 refer to the table below.

Australian Grand Prix ticket prices					
General Admission	Thurs	Fri	Sat	Sun	4-day
Adult	\$27	\$37	\$55	\$70	\$120
Concession	\$10	\$15	\$35	\$45	\$65
Family (2 adults/ 2 children)	\$54	\$74	\$110	\$140	\$240

- 13 For a family going to the Grand Prix on Sunday, the cost will be:  
 A \$74  
 B \$110  
 C \$140  
 D \$240
- 14 The difference between buying a 4-day concession ticket and buying separate concession tickets is:  
 A \$10  
 B \$40  
 C \$65  
 D \$120

Questions 15 and 16 refer to the table below.

Score	Frequency
3	2
4	1
5	7
6	9

- 15 The most frequent score is:  
 A 2  
 B 3  
 C 5  
 D 6
- 16 The frequency of the lowest score is:  
 A 2  
 B 3  
 C 4  
 D 5

Questions 17 to 19 relate to the following information.

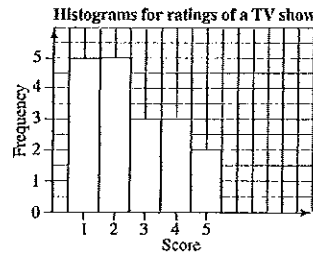
Twenty people were asked to rate a television show as a number out of 5. These ratings are given below.

0, 1, 1, 2, 4, 2, 2, 3, 1, 0,  
 3, 2, 1, 3, 4, 4, 5, 5, 2, 1.

A frequency distribution table is displayed for this data.

Score	Frequency
0	2
1	
2	5
3	3
4	3
5	2

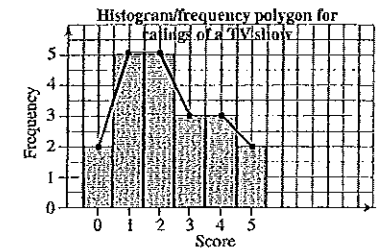
- 17 The missing number is:  
 A 3  
 B 4  
 C 5  
 D 6
- 18 A histogram of the ratings data is shown below.



What is wrong with the graph?

- A Column for score 0 is missing  
 B Incorrect column for score 5  
 C No title  
 D Incorrect labelling of the horizontal axis

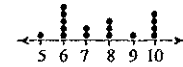
19



What is wrong with this frequency polygon for the ratings data?

- A Columns are too thin  
 B Midpoints of the tops are not joined correctly  
 C Incorrect scale used on the vertical axis  
 D Column for score 2 is missing

Questions 20 and 21 refer to the dotplot drawn below



The dotplot displays the scores out of 10 by a group of students on a spelling test.

- 20 How many students took the test?  
 A 5  
 B 10  
 C 15  
 D 16
- 21 The score with the highest frequency is:  
 A 4  
 B 5  
 C 6  
 D 10

Questions 22 to 24 refer to the stem and leaf plot below.

The data shows the number of car accidents at a particular intersection each year.

Key 1 | 4 = 14

Stem	Leaf
0	3 6 7 9
1	0 1 3 3 4
2	1 1 2 2 2 4 7 9
3	2 2 5

22 For how many years have records been kept?

- A 4
- B 20
- C 30
- D 35

23 The highest number of accidents recorded in a year is:

- A 2
- B 20
- C 22
- D 35

24 The most frequent number of accidents is:

- A 2
- B 20
- C 22
- D 35

### Data representation

Name: \_\_\_\_\_

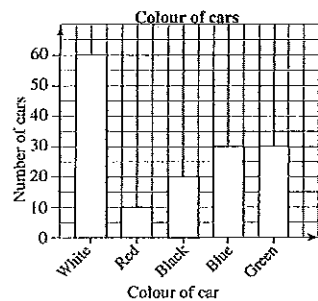
- 1 Label each of the following data according to whether they are qualitative or quantitative.
- (a) The favourite TV programs of each student in your class
  - (b) The number of hours of TV watched each week by each student in your class
  - (c) The height of each student in your class
  - (d) The top 10 TV programs last week

- 
- 2 Label each of the following data according to whether they are discrete or continuous.
- (a) The volume of petrol purchased for \$10 in various towns
  - (b) The maximum temperature each day for a month
  - (c) The shoe size of each student in your class
  - (d) The length of the left foot of each student in your class

- 
- 3 Label each of the following data according to whether they are nominal or ordinal.
- (a) The top 10 TV programs last month
  - (b) The country of origin of these top 10 programs
  - (c) The position last month of these programs
  - (d) The ages of people watching each of these programs.

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- 4 Describe the following lists of data as nominal, ordinal, discrete or continuous.
- (a) -0.12, 0.14, 0.24, 0.3, 0.345, 0.5, 1, 1.77...
  - (b) 3rd, 7th, 9th, 12th, 21st, 1st...
  - (c) 0, 0, 1, 1, 2, 3, 3, 3, 4, 4, 5, 5, 5, 6, 6, 7, 7...
  - (d) Shirt, shoes, blouse, jumper, socks, belt...
-

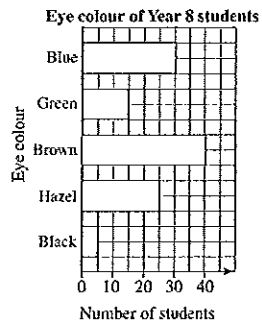
5



Use the column graph above to answer these questions.

- Which colour is the most popular?
- How many people were surveyed?
- Which coloured cars are equally popular?

6



Use the bar graph above to answer these questions.

- How many students have brown eyes?
- How many students were surveyed?
- Which eye colour has a frequency of 15?

7

Money saved in a week	
Name	Money saved
Bob	\$14.00
Carol	\$23.00
Tim	\$14.00
Jane	\$24.00
Sarah	\$31.00
Rob	\$9.00

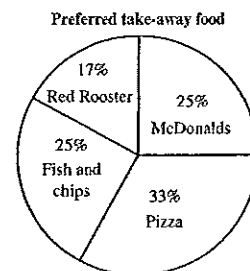
- Construct a column graph to display the data shown in the table above.
- Who saved the most money?
- List the names of the people in descending order of the amount of money they saved.
- Which 2 people saved the same amount of money?

8

CDs sold by music store in a month	
CD	Sales
Jazz	25
Rock	60
Dance	75
Country	15
Heavy Metal	40

- (a) Construct a bar graph to display the data shown in the table.
- (b) Which type of CD was the least popular?
- (c) How many more Dance CDs sell than Rock CDs?
- (d) How many Heavy Metal CD sales were made?

9



- (a) What is the most preferred take-away food?
- (b) What is the least preferred take-away food?
- (c) How many people liked fish and chips, if 200 people were surveyed?

- 10 The data below shows the number of students absent from each year level at a school on a particular day.

Year 7	26
Year 8	39
Year 9	18
Year 10	12
Year 11	15
Year 12	10

Represent this data on a sector graph.