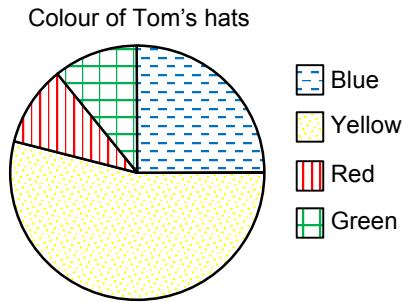## Topic Check In - 12.02 Interpreting and representing data

1. This pie chart shows the colour of hats that Tom owns.
    Which colour hat does he own most of?

    Colour of Tom's hats

    - Blue
    - Yellow
    - Red
    - Green

2. What percentage of Tom's hats are blue?

3. This pictogram shows how many laptops were sold by a company during one week.

Monday	
Tuesday	
Wednesday	
Thursday	
Friday	

    Key: represents 10 laptops

    How many laptops were sold on Tuesday?

4. Ken recorded the number of cars he sold in one week.

Colour of car	Frequency
Blue	5
Silver	3
White	1
Red	3
Other	2

    How many cars did he sell altogether?

5. Some people were asked which of football, tennis or cricket was their favourite sport. This bar chart shows the results.
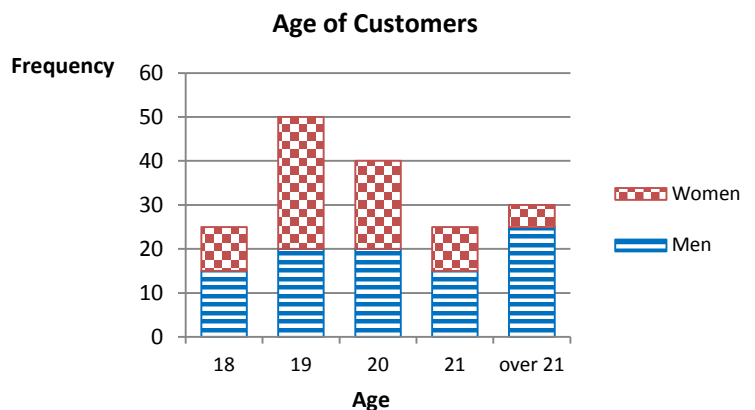
Favourite Sport
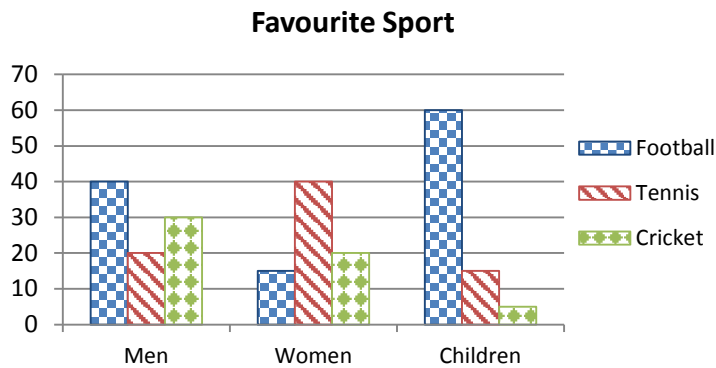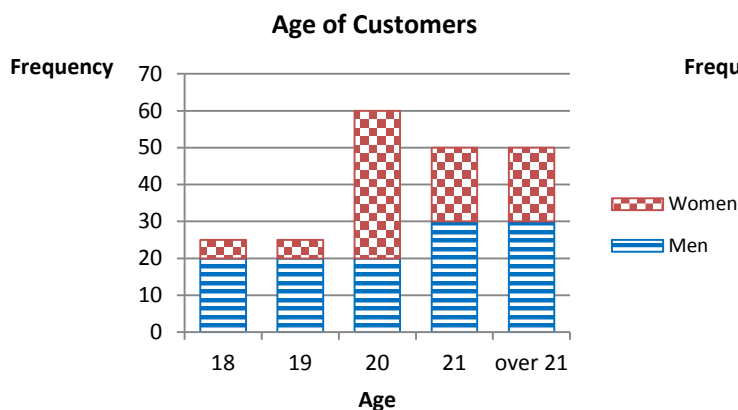

Which sport was most popular with women?

6. Kate says, "Most of the men who were asked said that they liked football best". Is Kate right? Explain your answer.

7. Which of the bar charts represents the data given in the frequency table?

	Frequency	
Age	Men	Women
18	10	15
19	30	20
20	20	20
21	10	15
over 21	5	25

Bar chart A

Age of Customers

Bar chart B

Age of Customers
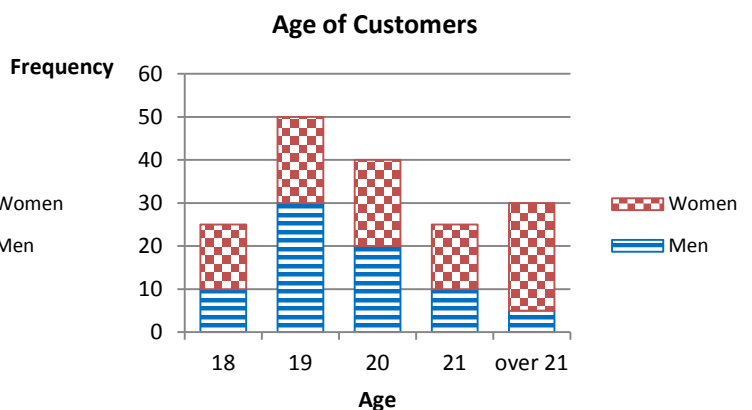
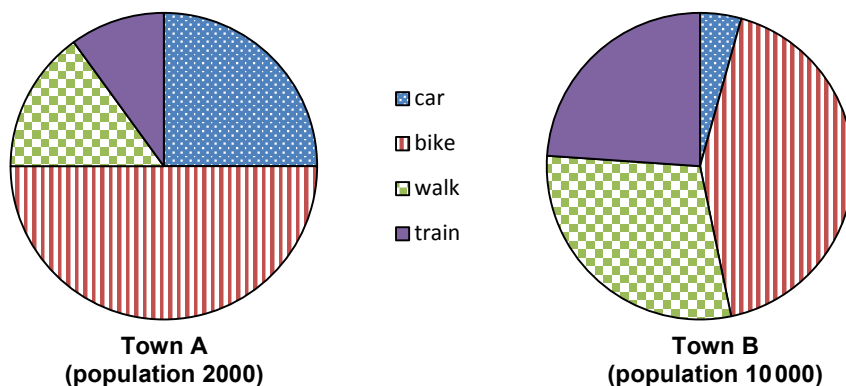**Bar chart C**

Age of Customers

8. These pie charts show how people travel to work in two towns.
   The populations of the towns are given.

Town A
(population 2000)

Town B
(population 10 000)

car
bike
walk
train

In which town do more people travel to work by bike? Explain your answer.

9. A dice is rolled 100 times.
   This bar chart shows the results.

   How many more 2s than 5s were thrown?

Dice Scores

Frequency

Number on Dice
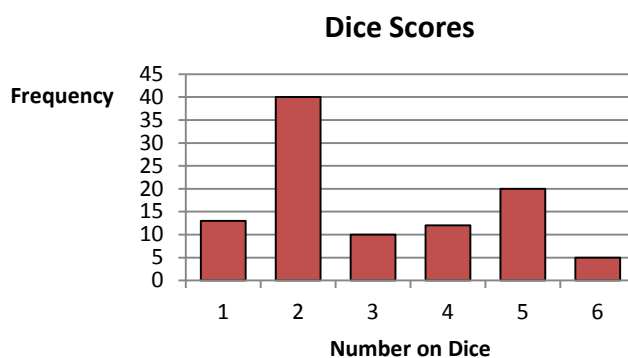
10. The graph below shows the percentage of time that 8 competitors spent on each of the 3 triathlon events: Swimming, Cycling and Running.
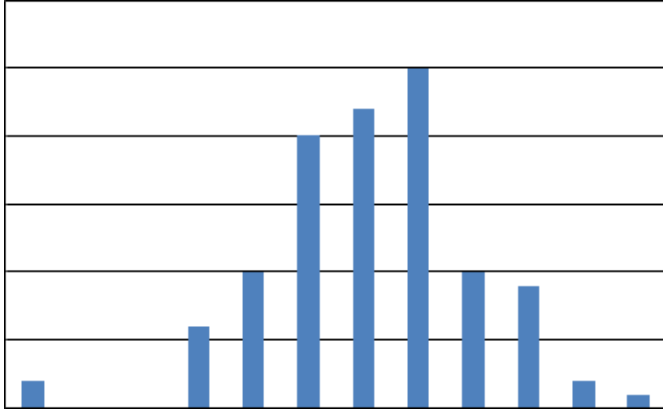

%

Competitor

Swimming   Cycling   Running
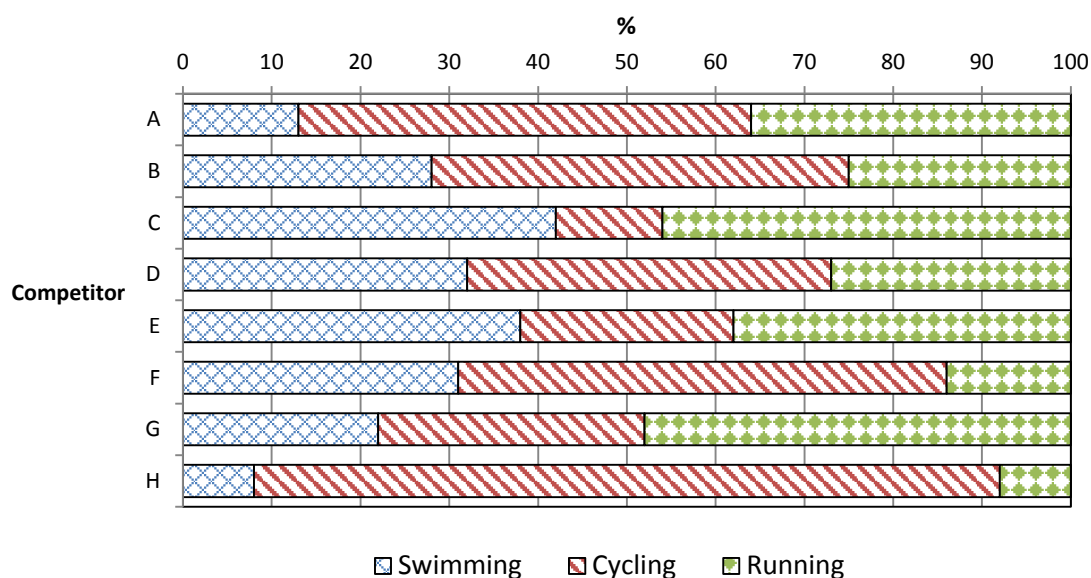
Which competitor spent 55% of their time cycling?

Extension

This is a bar chart but the title and labels for both axes are missing.

What data do you think it might be representing?
Write down as many ideas as you can for the data that it might represent.

For each idea suggest a title for the graph and labels for both axes.

Answer

1. Yellow

2. 25%

3. 15

4. 14

5. Tennis

6. No, 90 men were asked in total and 50 did not choose football, which is over half.

7. Graph C

8. Town B because although the sector is smaller, the population is much larger.

9. 20

10. F

Extension

Possible suggestions include hours of sunshine, number of people cycling to work/school, sales of ice creams, etc.

GCSE (9–1)
MATHEMATICS

Assessment Objective	Qu.	Topic	R	A	G
AO1	1	Find mode from pie chart.			
AO1	2	Express pie chart data as percentages.			
AO1	3	Interpret pictogram data.			
AO1	4	Summarise data from frequency table.			
AO1	5	Find mode from multiple bar chart.			
AO2	6	Interpret data displayed in multiple bar chart.			
AO2	7	Interpret frequency data in tables and charts.			
AO2	8	Compare pie charts.			
AO3	9	Interpret data from bar chart.			
AO3	10	Interpret data displayed in graph.			

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