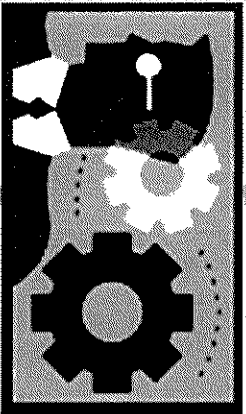


Yr 12 - Interpreting



Sets of Data

Name: _____

SHOW ALL YOUR WORKING OUT.

Question 1

- A) Name 3 measures of central tendency. (measures that try to determine the middle of the data)
- B) Name 3 measures of spread. (measures that try to determine how spread out the data is)

Question 2

For the following data find the mean, mode and median.

5, 4, 6, 8, 7, 3, 2, 5, 7, 8, 7

MEAN=

MODE=

MEDIAN=

Question 3

Find the range and interquartile range for the following data

2, 3, 7, 0, 3, 2, 5, 5, 7, 9, 7

RANGE=

INTERQUARTILE RANGE=

Question 4

Find the population standard deviation and the sample standard deviation for the following data

2, 3, 7, 0, 3, 2, 5, 5, 7, 9, 7

POPULATION STANDARD DEVIATION=

SAMPLE STANDARD DEVIATION=

Question 5

From the data presented in the table create a line graph and find the mean, mode, median and Interquartile range .

Score	Frequency	Fx	C.f.
8	1		
9	3		
10	4		
11	1		
12	1		

MEAN=

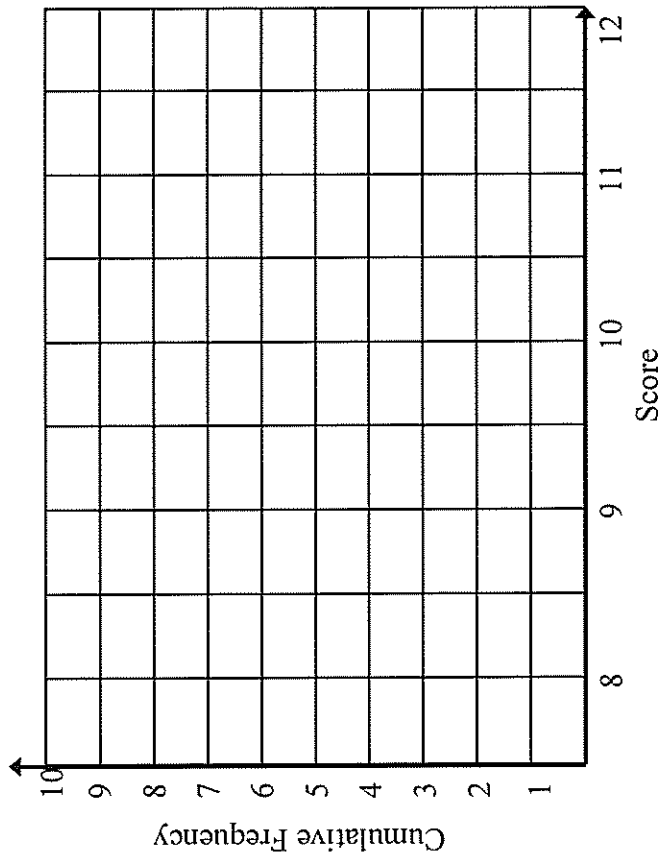
MODE=

MEDIAN=

FIRST QUARTILE=

THIRD QUARTILE=

INTERQUARTILE RANGE=



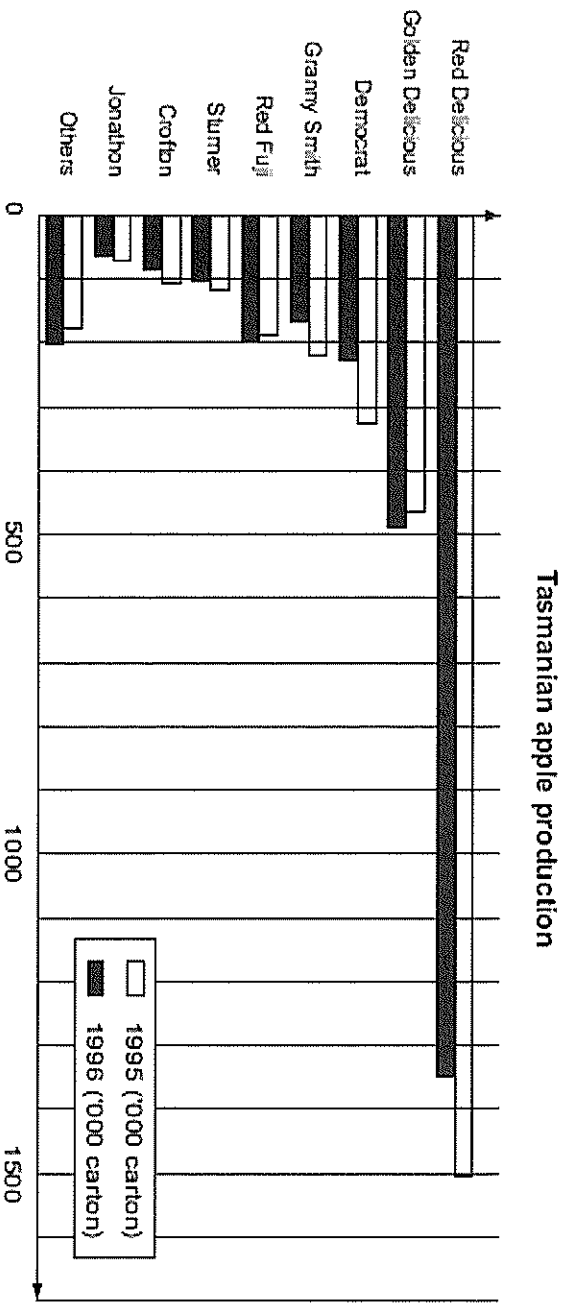
Question 6

For large sets of scores, what percentage of them :

- A) are below the median, this is, the second quartile?
- B) are above the median, this is, the second quartile?
- C) are less than the first quartile?
- D) are more than the first quartile?
- E) are less than the third quartile?
- F) are more than the third quartile?
- G) Lie between the first and third quartile?

Question 7

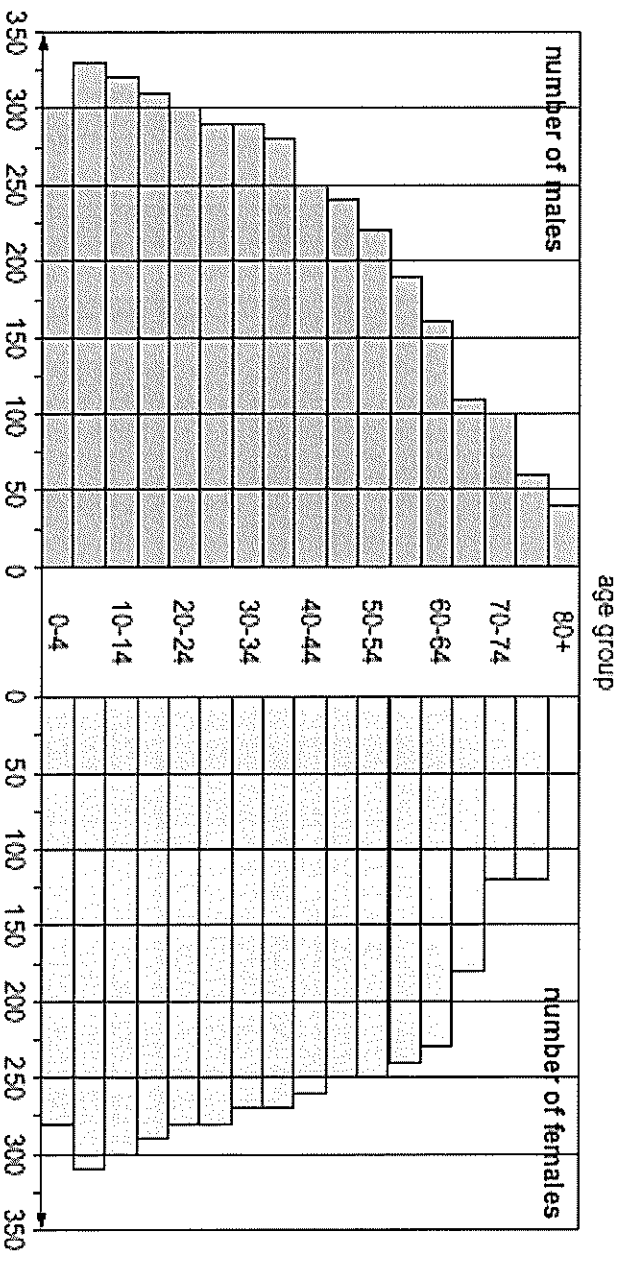
The horizontal bar graph shows the Tasmanian apple production for 1995 and 1996.



- A) For which varieties was there an increase in population from 1995 to 1996
- B) Which variety was there the largest increase?
- C) Which variety was there the largest decrease?

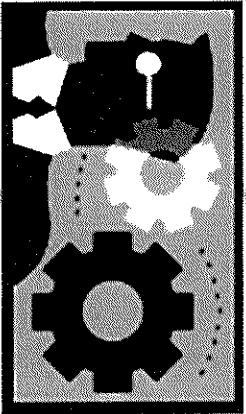
Question 8

The population pyramid below gives the age distribution of a town of 7820 people.



- A) How many males are there in the 0-4 age group?
- B) Calculate the percentage of males in the age group 0-4 compared with the entire towns population.
- C) In which age groups does the percentage of females double that of males?
- D) What conclusions can you make about the life expectancy of males compared with females?

Yr 12 - Interpreting



Sets of Data

Name: _____

SHOW ALL YOUR WORKING OUT.

Question 1

A) Name 3 measures of central tendency. (measures that try to determine the middle of the data)

Median, Mean, Mode.

B) Name 3 measures of spread. (measures that try to determine how spread out the data is)

Range, Standard Deviation, Interquartile Range

Question 2

For the following data find the mean, mode and median.

5, 4, 6, 8, 7, 3, 2, 5, 7, 8, 7

2, 3, 4, 5, 5, 6, 7, 7, 7, 8, 5

$$\text{MEAN} = \frac{62}{10}$$

$$= 6.2$$

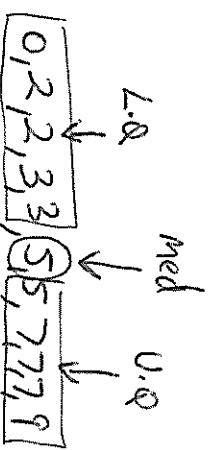
$$\text{MODE} = 7$$

$$\text{MEDIAN} = 6$$

Question 3

Find the range and interquartile range for the following data

2, 3, 7, 0, 3, 2, 5, 5, 7, 9, 7



$$\text{RANGE} = 9 - 0$$
$$= 9$$

$$\text{INTERQUARTILE RANGE} = 5 - 2$$
$$= 3$$

Question 4

Find the population standard deviation and the sample standard deviation for the following data

2, 3, 7, 0, 3, 2, 5, 5, 7, 9, 7

$$\text{POPULATION STANDARD DEVIATION} = 2.641\dots$$

$$= 2.6 \text{ (1 d.p.)}$$

$$\text{SAMPLE STANDARD DEVIATION} = 2.76996\dots$$

$$= 2.8 \text{ (1 d.p.)}$$

Question 5

From the data presented in the table create a line graph and find the mean, mode, median and Interquartile range .

MEAN= 9.8

Score	Frequency	F_x	C.f.
8	1	$8 \times 1 = 8$	1
9	3	$9 \times 3 = 27$	(+3) 4
10	4	$10 \times 4 = 40$	(+4) 8
11	1	$11 \times 1 = 11$	(+1) 9
12	1	$12 \times 1 = 12$	(+1) 10

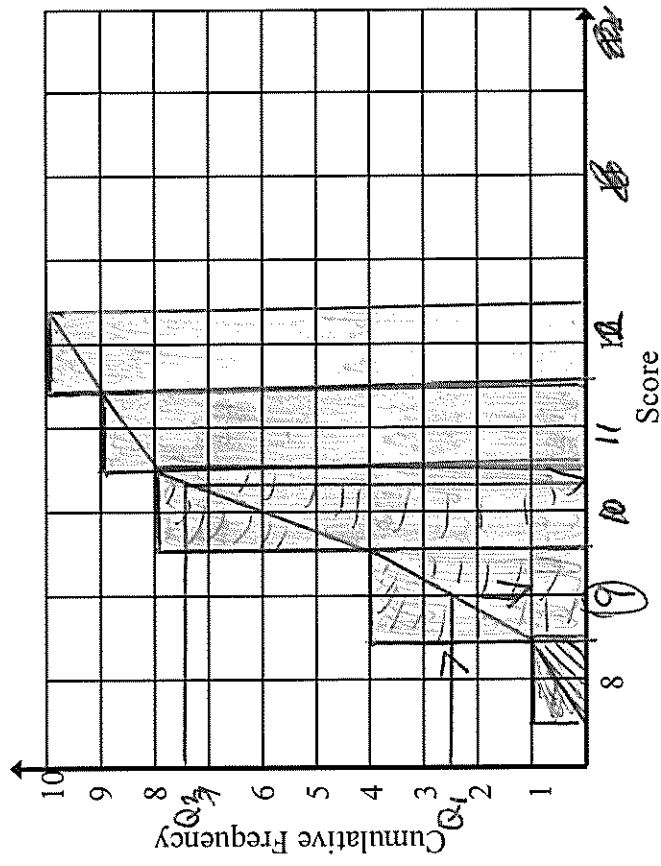
MODE= 10

MEDIAN= 10

FIRST QUARTILE= 9

THIRD QUARTILE= 10

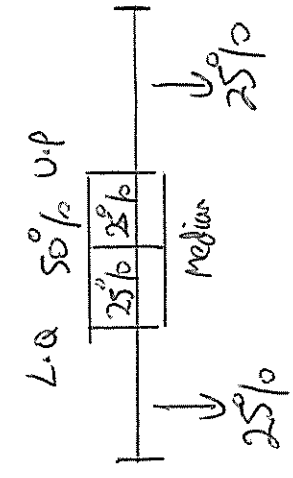
INTERQUARTILE RANGE= $10 - 9 = 1$



Question 6

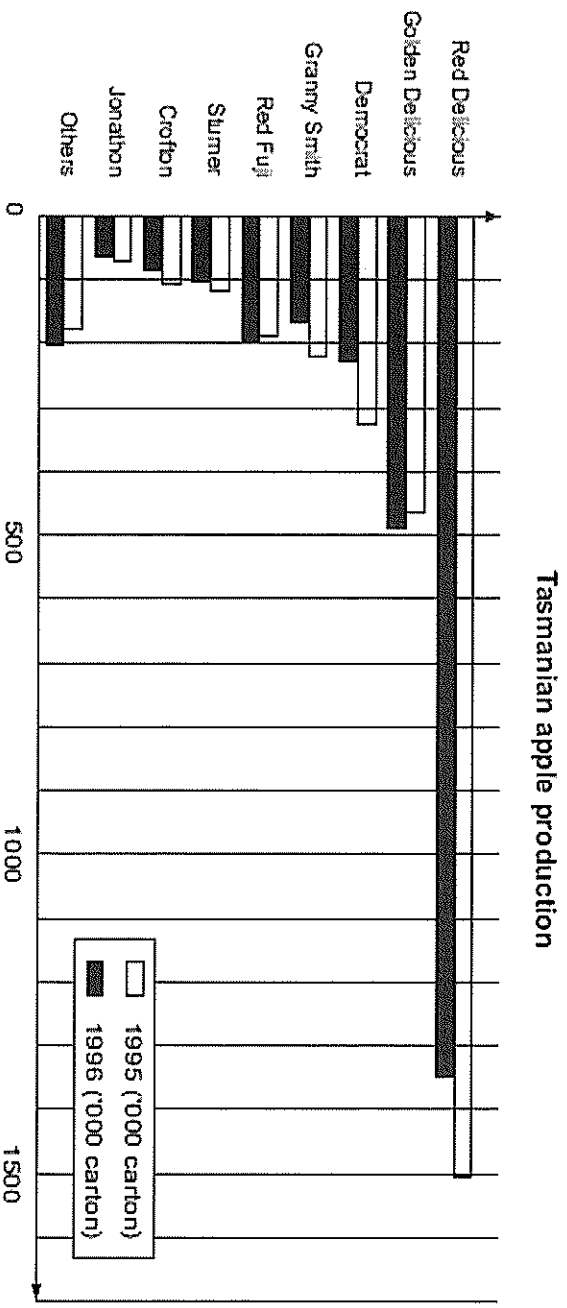
For large sets of scores, what percentage of them :

- A) are below the median, this is, the second quartile? 50%
- B) are above the median, this is, the second quartile? 50% U.P
- C) are less than the first quartile? 25%
- D) are more than the first quartile? 75%
- E) are less than the third quartile? 75%
- F) are more than the third quartile? 25%
- G) Lie between the first and third quartile? 50%



Question 7

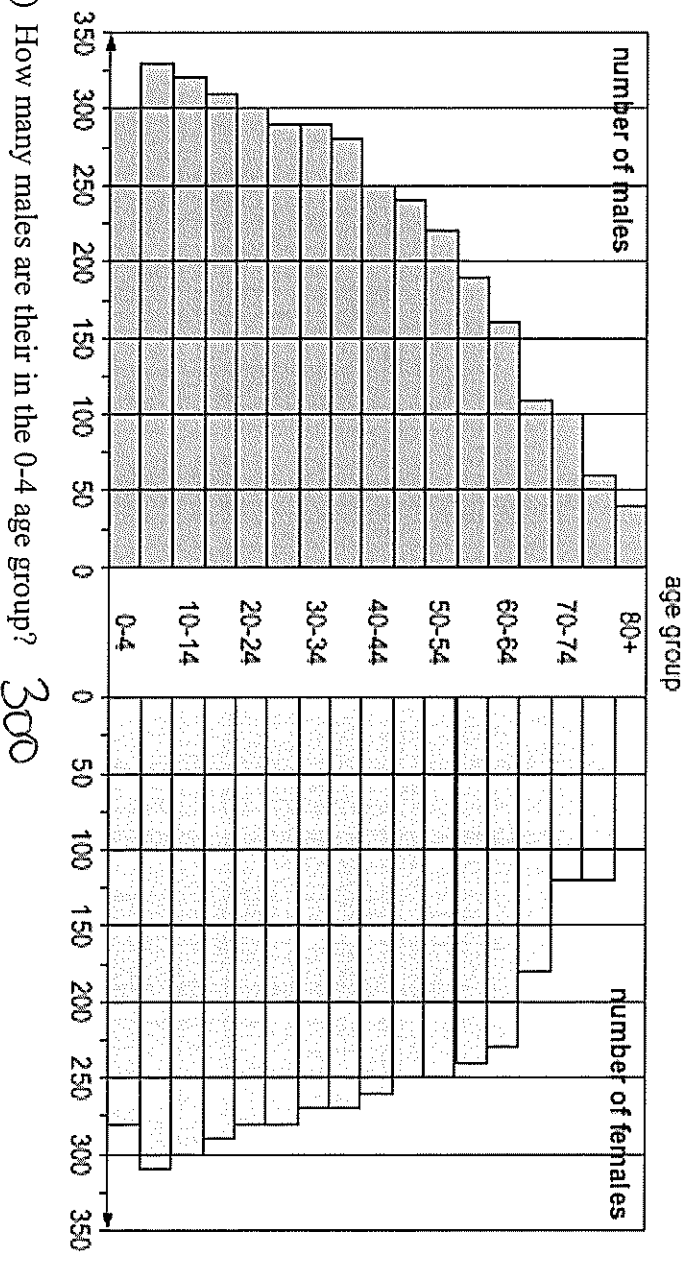
The horizontal bar graph shows the Tasmanian apple production for 1995 and 1996.



- A) For which varieties was there an increase in population from 1995 to 1996
Golden Delicious, Red Fuji, Others,
- B) Which variety was there the largest increase?
Golden Delicious
- C) Which variety was there the largest decrease?
Red Delicious

Question 8

The population pyramid below gives the age distribution of a town of 7820 people.



- A) How many males are there in the 0-4 age group? *300*
- B) Calculate the percentage of males in the age group 0-4 compared with the entire towns population.
 $(300 \div 7820) \times 100 = 3.8\%$ (1 d.p.)
- C) In which age groups does the percentage of females double that of males?
75-79
- D) What conclusions can you make about the life expectancy of males compared with females?
Females will on average live longer.

