1 The table shows information about the heights of 25 students.

Height, h (cm)	Frequency
$130 < h \leq 140$	3
$140 < h \leq 150$	15
$150 < h \leq 160$	6
$160 < h \leq 170$	1

(a) Find the modal class.

....

(1)

(b) Work out an estimate for the mean height of the students.

.... cm

(3)

(Total for Question 1 is 4 marks)

1

2 The table shows information about the masses of 400 apples.

Mass, m (grams)	Frequency
$70 < m \leq 90$	62
$90 < m \leq 110$	118
$110 < m \leq 130$	194
$130 < m \leq 150$	26

(a) Find the modal class.

....
(1)

(b) Find the class interval that contains the median.

....
(1)

(c) Work out an estimate for the mean mass of the apples.

.... g
(3)

(Total for Question 2 is 5 marks)

2

Solutions

3   The table shows information about the speeds of some cars on a road.

Speed, s (mph)	Frequency
$30 < s \le 40$	1
$40 < s \le 50$	14
$50 < s \le 60$	37
$60 < s \le 70$	48

(a) Find the modal class.

....

(1)

(b) Find the class interval that contains the median.

....

(1)

(c) Work out an estimate for the mean speed of the cars.

.... mph

(3)

(Total for Question 3 is 5 marks)

4 The table shows information about the weekly pay of some workers.

Weekly Pay, (£w)	Frequency
$400 < w \leq 500$	12
$500 < w \leq 600$	11
$600 < w \leq 700$	6
$700 < w \leq 800$	5
$800 < w \leq 900$	1

(a) Find the modal class.

....
(1)

(b) Find the class interval that contains the median.

....
(1)

(c) Work out an estimate for the mean weekly pay.

£...
(3)

(Total for Question 4 is 5 marks)

5 The table shows information about the race times of 50 runners.

Time, t (minutes)	Frequency
$15 < t \le 16$	6
$16 < t \le 17$	10
$17 < t \le 18$	10
$18 < t \le 19$	21
$19 < t \le 20$	3

(a) Find the modal class.

....

(1)

(b) Find the class interval that contains the median.

....

(1)

(c) Work out an estimate for the mean race time.
    Give your answer in minutes and seconds

.... minutes .... seconds

(4)

(Total for Question 5 is 6 marks)

6 The table shows information about the distances jumped by 11 athletes.

Distance, d (metres)	Frequency
$4 < d \leq 4.5$	6
$4.5 < d \leq 5$	1
$5 < d \leq 5.5$	2
$5.5 < d \leq 6$	2

(a) Find the modal class.

....

(1)

(b) Find the class interval that contains the median.

....

(1)

(c) Work out an estimate for the mean distance jumped.
Give your answer in centimetres.

.... cm

(3)

Two more athletes jump and their distances are recorded.
Both athletes jump more than 4.5 metres.

The results for the two extra athletes are added to the table.

(d) How will the two extra athletes affect your answers to parts (a), (b) and (c).
For each statement below tick one box.

	Remains the same	Changes	Not possible to tell
Part (a) The modal class	☐	☐	☐
Part (b) The estimate of the mean	☐	☐	☐
Part (c) The interval containing the median	☐	☐	☐

(3)

(e) Mo says: "The range of the jumps is 1.5 metres as 5.75 – 4.25 = 1.5"

Explain why Mo may not be correct.

....

....

....

(1)

(Total for Question 6 is 9 marks)