

End of Unit Test

Name: Answers



Data – Interpreting Results – HIGHER

1. The table shows information about the pay per hour of 40 people.

Pay per hour, x (£)	Frequency	x	fx
$5 < x \leq 15$	14	10	140
$15 < x \leq 25$	12	20	240
$25 < x \leq 35$	11	30	330
$35 < x \leq 45$	2	40	80
$45 < x \leq 55$	1	50	50
Total = 40			840

(a) Which group contains the median pay per hour? Circle your answer.

$5 < x \leq 15$ $15 < x \leq 25$ $25 < x \leq 35$ $35 < x \leq 45$ $45 < x \leq 55$

(1)

(b) Work out an estimate of the mean pay per hour.

..... $840 \div 40 = 21$

Answer £ 21

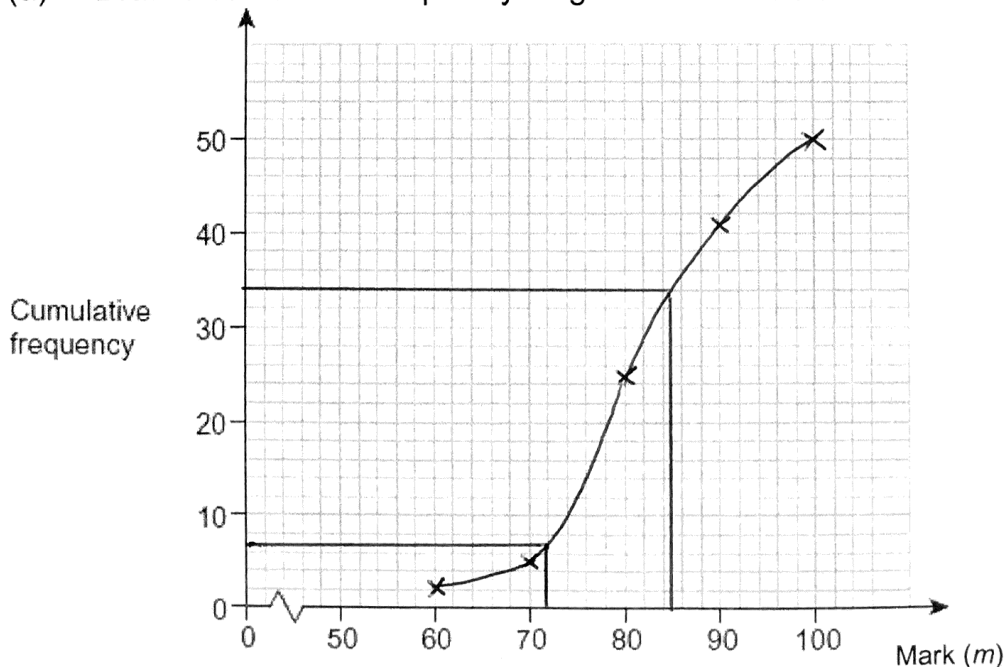
(4)

(Total 5 marks)

2. The table shows the marks of 50 students in a test.

Mark (m)	Number of students	CF.
$50 < m \leq 60$	2	2
$60 < m \leq 70$	3	5
$70 < m \leq 80$	20	25
$80 < m \leq 90$	16	41
$90 < m \leq 100$	9	50

(a) Draw a cumulative frequency diagram for the data.



(3)

- (b) Students who scored between 72 and 85 marks are chosen for extra lessons. Estimate the number of students chosen.

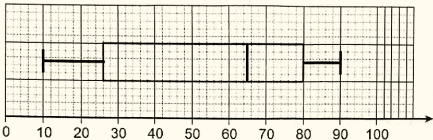
$$34 - 7 = 27$$

Answer 27 students

(3)

(Total 6 marks)

3. The diagram shows a box plot.



- (a) Write down the median.

Answer 65

(1)

- (b) Work out the interquartile range.

$$80 - 26 = 54$$

Answer 54

(1)

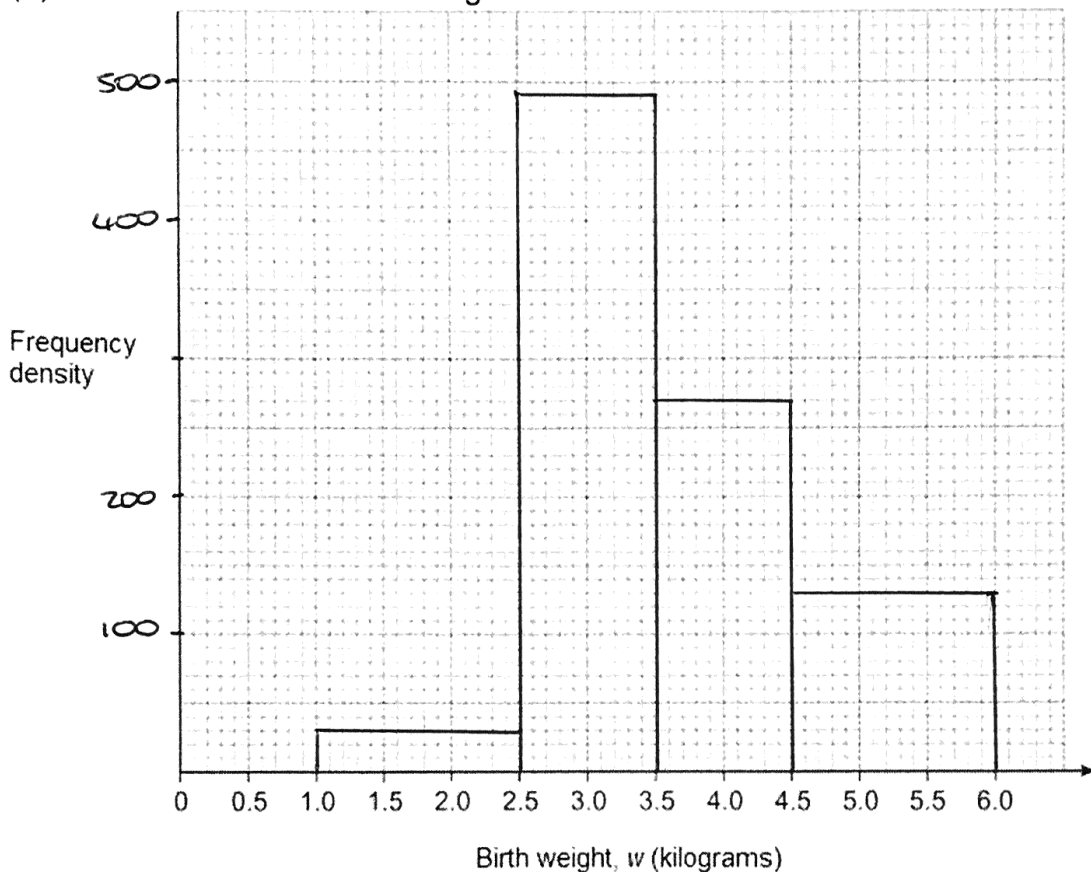
(Total 2 marks)

4. The grouped frequency table represents the birth weights of 1000 babies.

$$\frac{F}{FD \times CW}$$

Birth weight, w (kilograms)	Frequency	CW	FD
$1.0 \leq w < 2.5$	45	1.5	30
$2.5 \leq w < 3.5$	490	1	490
$3.5 \leq w < 4.5$	270	1	270
$4.5 \leq w < 6.0$	195	1.5	130

(a) Show the data on a histogram.



(4)

(b) Babies under 2.5 kg have a low birth weight. Two of the 1000 babies are chosen at random. Work out the probability that **both** babies have a low birth weight. You **must** show your working.

$$\frac{45}{1000} \times \frac{44}{999} = \frac{11}{5550}$$

Answer $\frac{11}{5550}$

(3)

(Total 7 marks)

(Total for test = 20 marks)