**End of Unit Test** Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Data – Interpreting Results – HIGHER**

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Pay per hour, *x* (£)** | **Frequency** |  |  |
|  | 5 < *x* ≤ 15 | 14 |  |  |
|  | 15 < *x* ≤ 25 | 12 |  |  |
|  | 25 < *x* ≤ 35 | 11 |  |  |
|  | 35 < *x* ≤ 45 | 2 |  |  |
|  | 45 < *x* ≤ 55 | 1 |  |  |
|  |  | Total = 40 |  |  |

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

5 < *x* ≤ 15       15 < *x* ≤ 25       25 < *x* ≤ 35       35 < *x* ≤ 45       45 < *x* ≤ 55

**(1)**

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

…………………………………………………………………………………………………

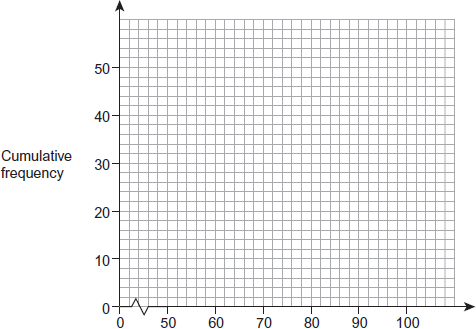
Answer £ .................................................................................

**(4)**

**(Total 5 marks)**

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

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Mark (*m*)** | **Number of students** |  |
|  | 50 < *m* ≤ 60 | 2 |  |
|  | 60 < *m* ≤ 70 | 3 |  |
|  | 70 < *m* ≤ 80 | 20 |  |
|  | 80 < *m* ≤ 90 | 16 |  |
|  | 90 < *m* ≤ 100 | 9 |  |

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

Mark (*m*)

**(3)**

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

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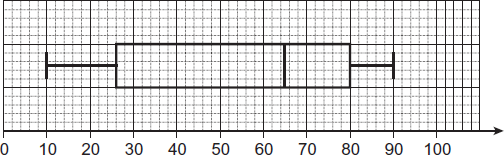
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Answer ......................................................................

**(3)**

**(Total 6 marks)**

**3.** The diagram shows a box plot.



(a) Write down the median.

Answer ......................................................................

**(1)**

(b) Work out the interquartile range.

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…………………………………………………………………………………………………

Answer ......................................................................

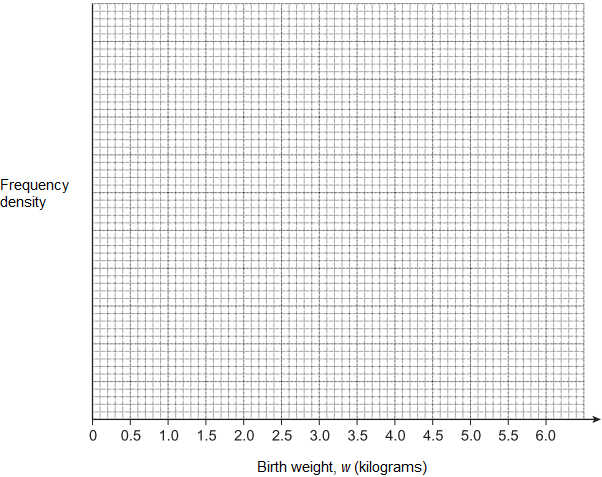
**(1)**

**(Total 2 marks)**

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

|  |  |  |
| --- | --- | --- |
|  | **Birth weight, *w* (kilograms)** | **Frequency** |
|  | 1.0 ≤ *w* < 2.5 | 45 |
|  | 2.5 ≤ *w* < 3.5 | 490 |
|  | 3.5 ≤ *w* < 4.5 | 270 |
|  | 4.5 ≤ *w* < 6.0 | 195 |

(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.

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Answer ......................................................................

**(3)**

**(Total 7 marks)**

**(Total for test = 20 marks)**