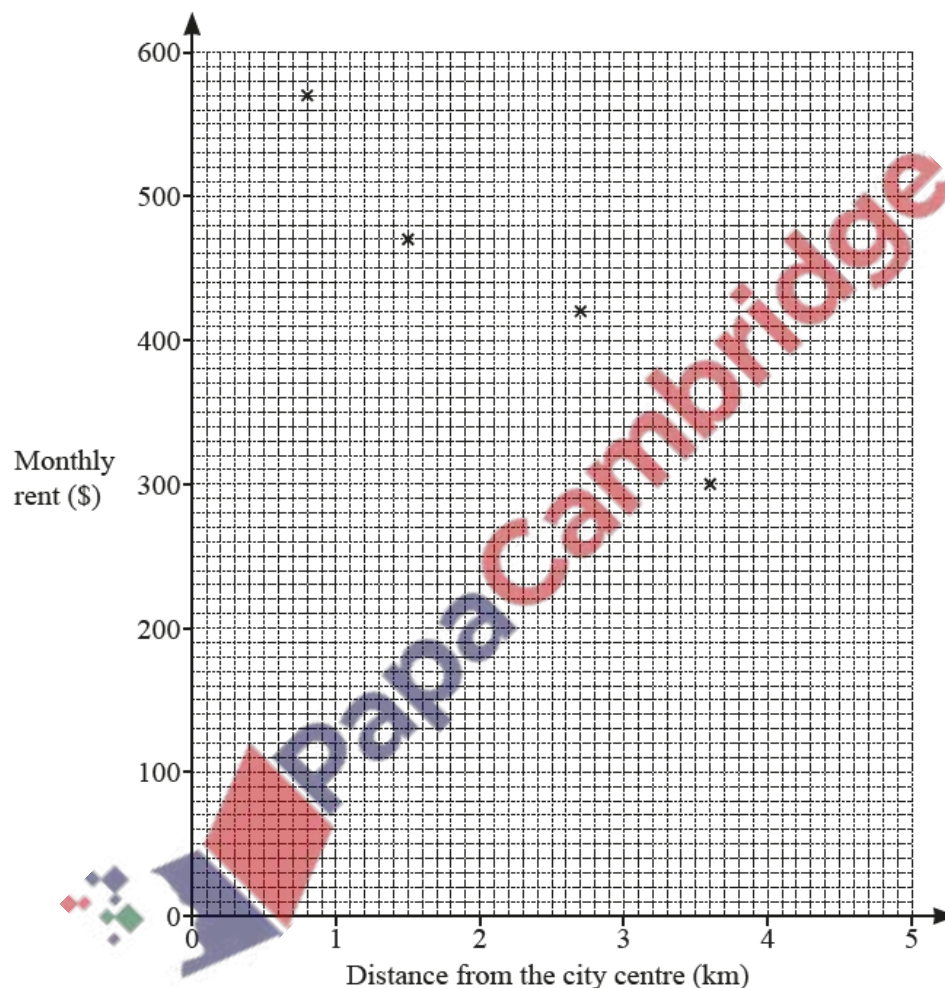


Statistical diagrams – 2022 O Level Math D

1. June/2022/Paper_11/No.10

The table below shows the monthly rent for nine apartments and the distance of these apartments from the city centre.

Distance from the city centre (km)	0.8	1.5	2.7	3.6	2.0	4.3	2.3	3.0	1.0
Monthly rent (\$)	570	470	420	300	480	270	390	360	530



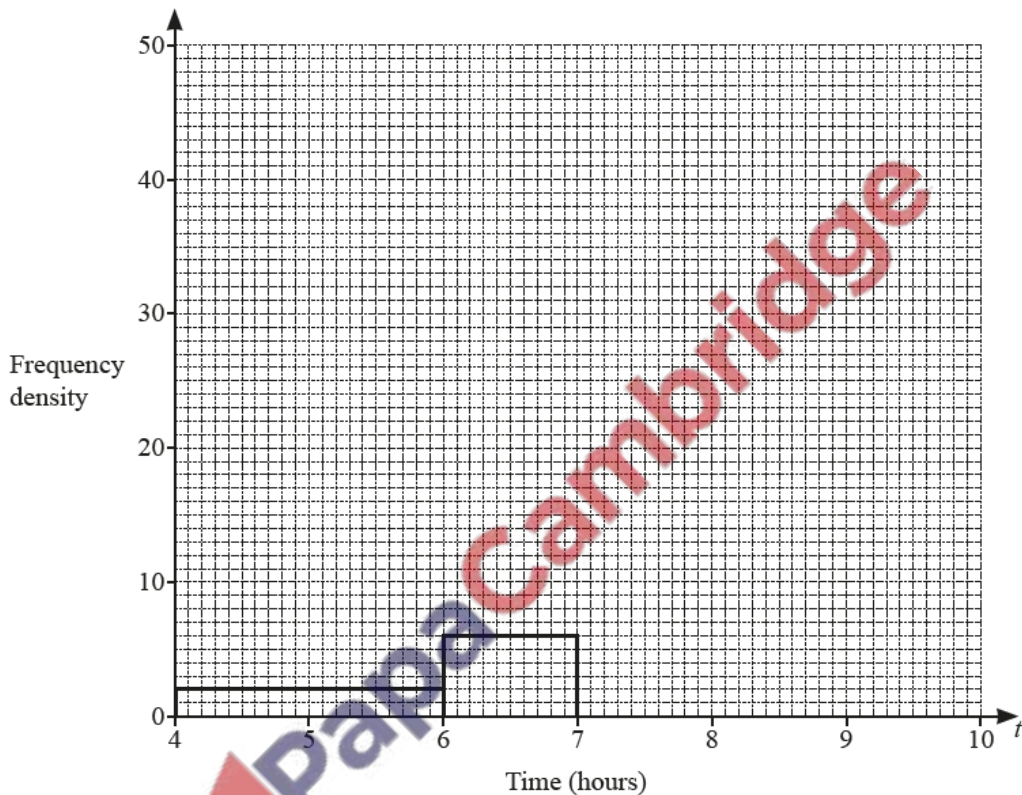
- (a) Complete the scatter diagram.
The first four points have been plotted for you. [2]
- (b) What type of correlation is shown on the scatter diagram?
..... [1]
- (c) On the scatter diagram, draw a line of best fit. [1]
- (d) Use your line of best fit to estimate the monthly rent for an apartment which is 4 km from the city centre.
\$ [1]

2. June/2022/Paper_21/No.7(b)

(b) Yasir records the length of time he spends at work on each of 70 work days.
The table shows the results.

Time (t hours)	$4 < t \leq 6$	$6 < t \leq 7$	$7 < t \leq 7\frac{1}{2}$	$7\frac{1}{2} < t \leq 8$	$8 < t \leq 8\frac{3}{4}$	$8\frac{3}{4} < t \leq 10$
Frequency	4	6	9	23	18	10

(i) Complete the histogram to represent the data.



[3]

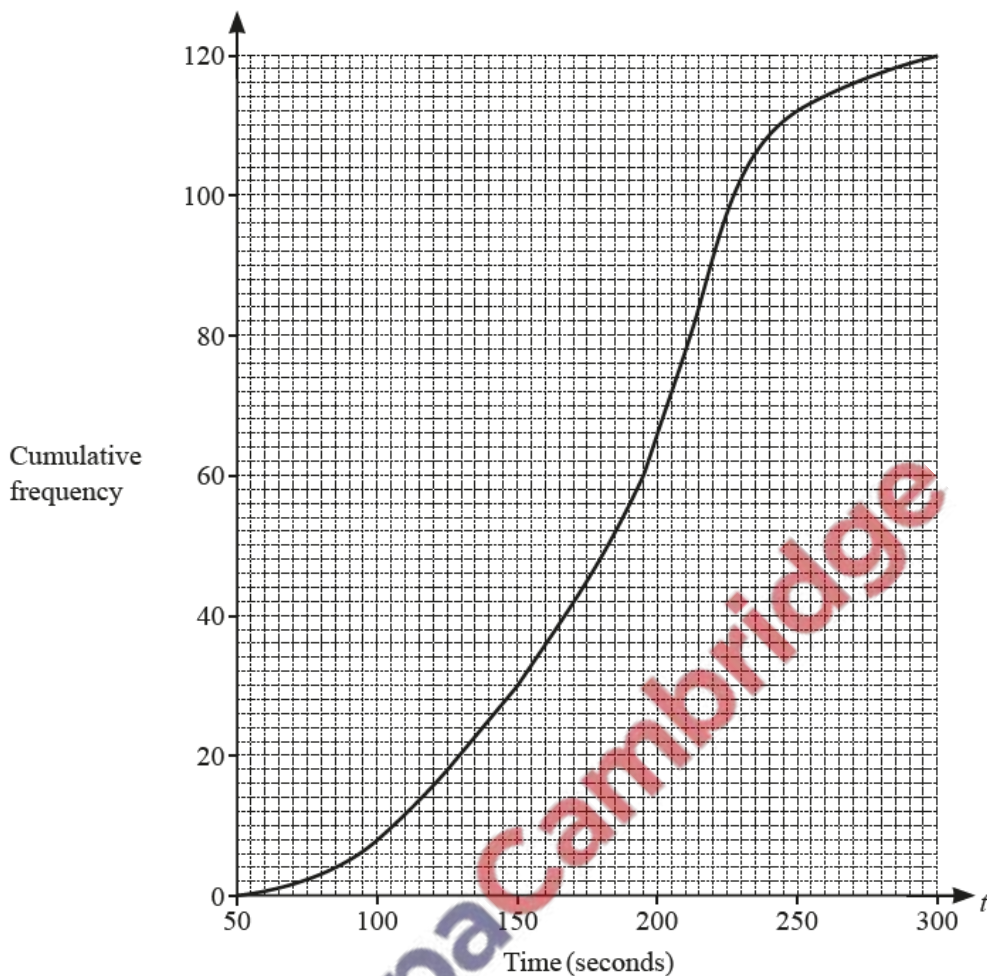
- (ii) \blacklozenge Yasir starts work each day at 9.00 a.m.
 \blacklozenge He is paid overtime if he works later than 5.15 p.m.

Estimate the number of days he is paid overtime during these 70 work days.

..... [2]

3. June/2022/Paper_22/No.5(b)

(b) A group of adults also completed this puzzle.
A cumulative frequency diagram for their times is shown.



(i) Use the cumulative frequency diagram to complete the frequency table.

Time (t seconds)	$50 < t \leq 100$	$100 < t \leq 150$	$150 < t \leq 200$	$200 < t \leq 250$	$250 < t \leq 300$
Frequency	8				

[2]

(ii) Use the cumulative frequency diagram to find an estimate of the median.

..... s [1]

(iii) 55% of the adults took between 125 seconds and k seconds to complete the puzzle.

Use the cumulative frequency diagram to find the value of k .

$k =$ [3]