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|---------------|--|--|--|--|--|-----------------|--|--|---|--|---------|------------|--|
| Centre No. | | | | | | Paper Reference | | | | | Surname | Initial(s) | |
| Candidate No. | | | | | | | | | / | | | Signature | |

Paper Reference(s)

Examiner's use only

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Team Leader's use only

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Edexcel GCSE

Mathematics – Two Tier

Stage 1 – Section B

Data Handling (Non-Calculator)

Higher Tier

Specimen Paper

Time: 20 minutes



Materials required for examination

Ruler graduated in centimetres and millimetres, protractor, compasses, pen, HB pencil, eraser.
Tracing paper may be used.

Items included with question papers

Nil

Instructions to Candidates

In the boxes above, write your centre number, candidate number, your surname, initials and signature. Check that you have the correct question paper. Answer ALL the questions. Write your answers in the spaces provided in this question paper. If you need more space to complete your answer to any question, use additional answer sheets.

Information for Candidates

The marks for individual questions and the parts of questions are shown in round brackets: e.g. (2). There are 4 questions in this question paper. The total mark for this section is 15. There are 8 pages in this question paper. Any blank pages are indicated. **Calculators must not be used.**

Advice to Candidates

Show all stages in any calculations. Work steadily through the paper. Do not spend too long on one question. If you cannot answer a question, leave it and attempt the next one. Return at the end to those you have left out.

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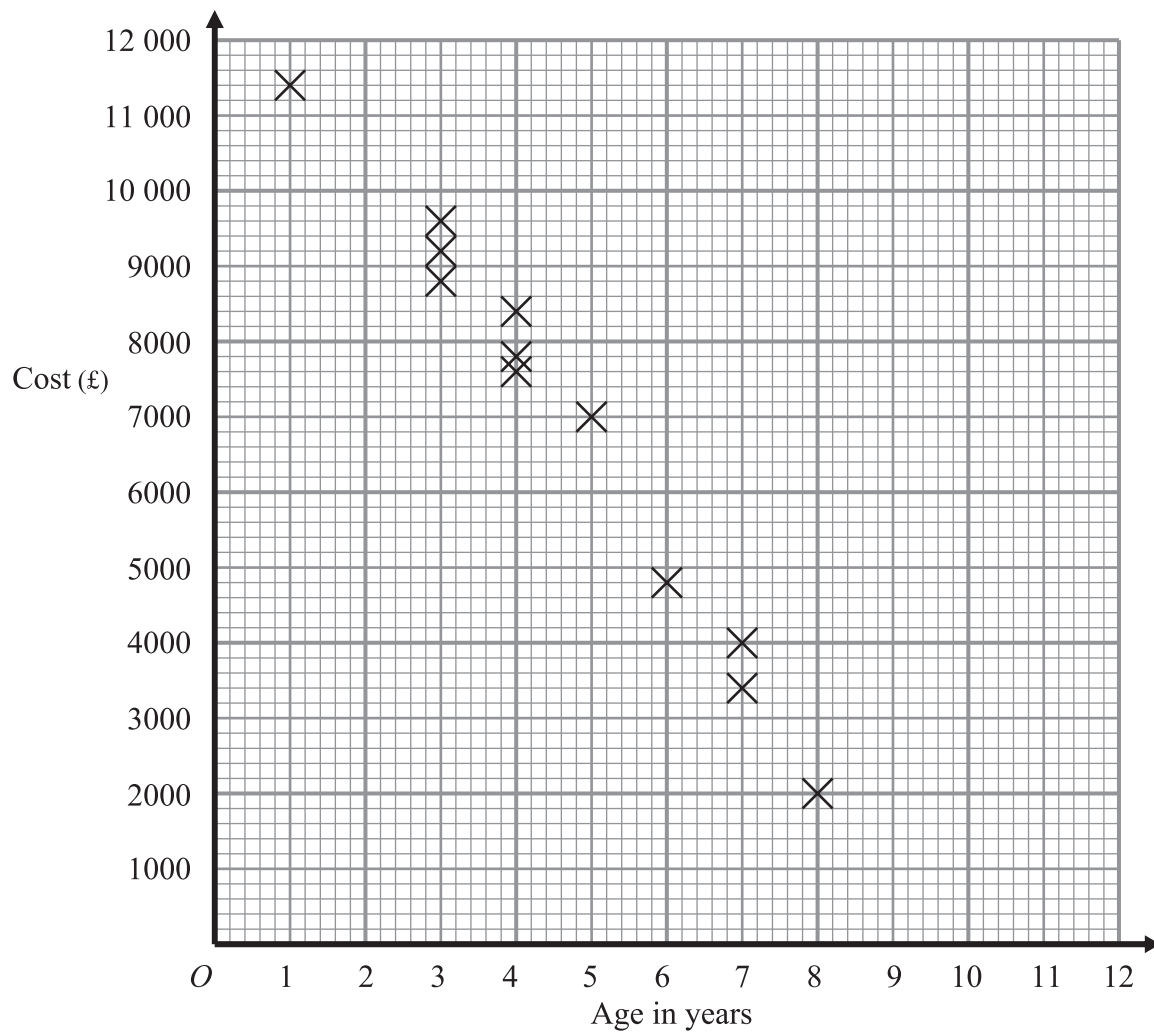
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SECTION B

**Answer ALL FOUR questions.
Write your answers in the spaces provided.
You must NOT use a calculator for this section.
You must write down all stages of your working.**

1. Tom collects information about the age and cost of some Ford Mondeo cars.

He plots a scatter graph of his results. Here is his graph.



Tom collects data on 3 more Ford Mondeo cars.

| | | | |
|----------|--------|------|------|
| Age | 2 | 7 | 9 |
| Cost (£) | 10 000 | 3000 | 1000 |

- (a) Plot these points onto the scatter graph. (1)
- (b) What type of correlation does Tom's scatter graph show?
..... (1)
- (c) Draw in a line of best fit onto the scatter graph. (1)



Leave blank

(d) Use your line of best fit to estimate

(i) the cost of a $5\frac{1}{2}$ year old Ford Mondeo.

£

(ii) the age of a Ford Mondeo that cost £6 000

..... years

(2)

Q1

(Total 5 marks)

2. The manager at “Wheels R Us” recorded the time in minutes it took to change the wheels on cars using his garage.

Here are his results.

25 34 12 8 6 21 18 14 16 22
21 15 16 32 9 15 18 21 12 8

(i) Draw a stem and leaf diagram to show these results.

0
1
2
3

Key: 1 | 4 = 14

(ii) Find the median time.

Q2

(Total 3 marks)



3. The table shows the ages of 160 employees of an IT company.

| Age (A) in years | Frequency |
|----------------------|-----------|
| $15 < A \leq 25$ | 44 |
| $25 < A \leq 35$ | 56 |
| $35 < A \leq 45$ | 34 |
| $45 < A \leq 55$ | 19 |
| $55 < A \leq 65$ | 7 |

(a) Complete the cumulative frequency table.

| Age (A) in years | Cumulative frequency |
|----------------------|----------------------|
| $15 < A \leq 25$ | |
| $15 < A \leq 35$ | |
| $15 < A \leq 45$ | |
| $15 < A \leq 55$ | |
| $15 < A \leq 65$ | |

(1)

(b) On the grid opposite, draw a cumulative frequency graph for your table.

(2)

Another IT company has 80 employees.

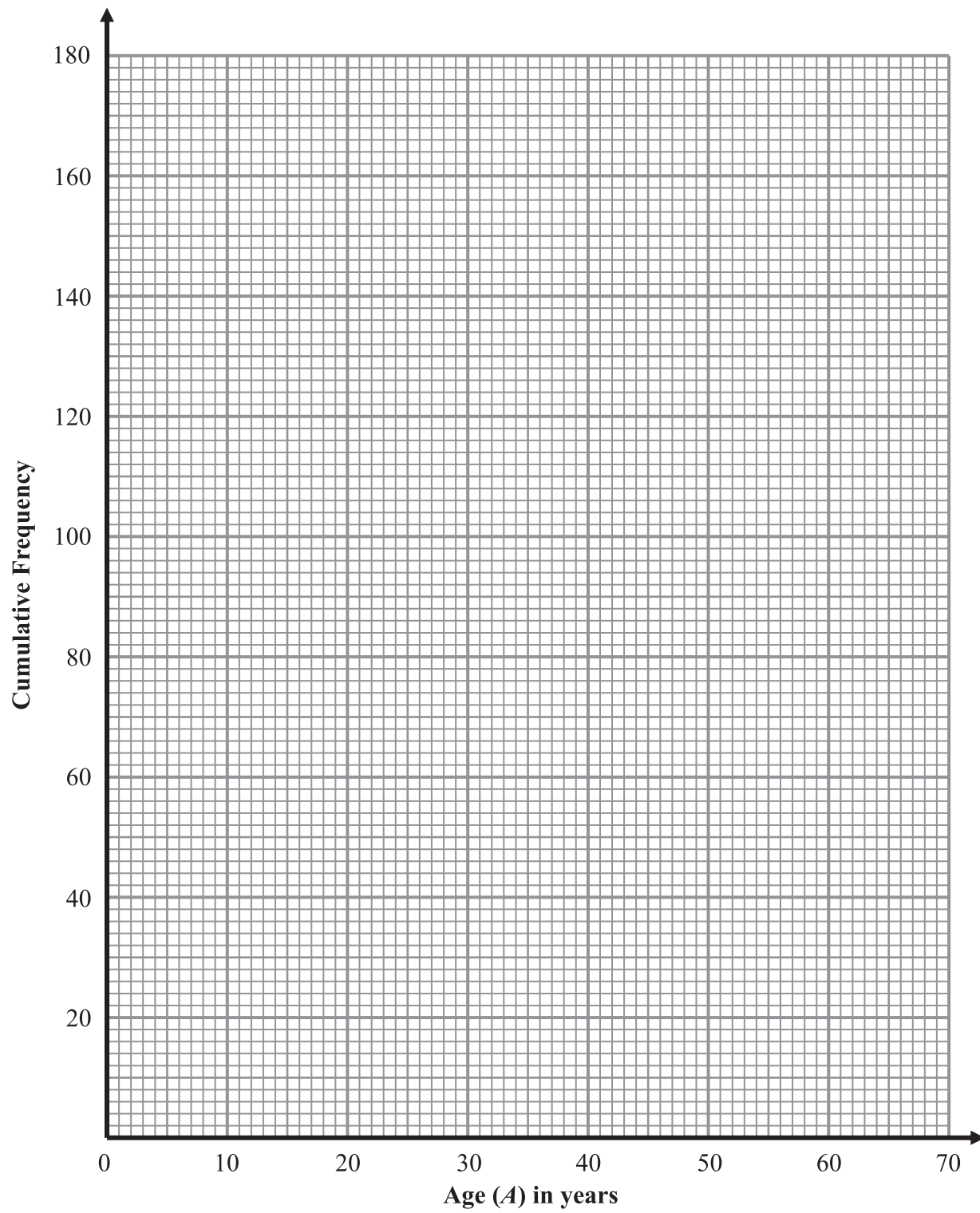
The age of the youngest employee is 24 years.
The age of the oldest employee is 54 years.

The median age is 38 years.
The lower quartile age is 30 years.
The upper quartile age is 44 years.

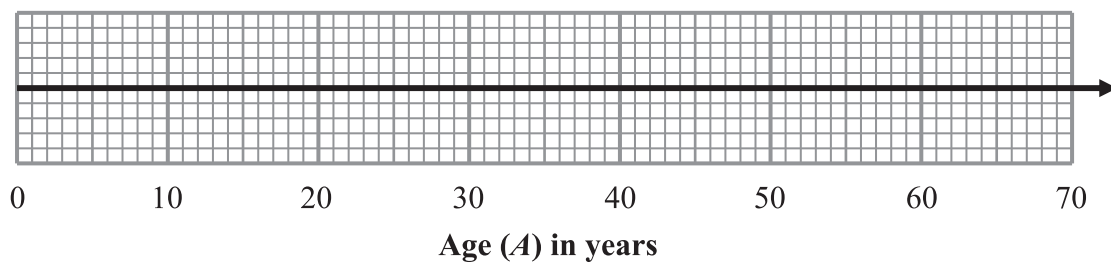
(c) On the grid opposite draw a box plot to show information about the ages of the employees.

(2)





Grid for part (c)



(Total 5 marks)

Leave blank

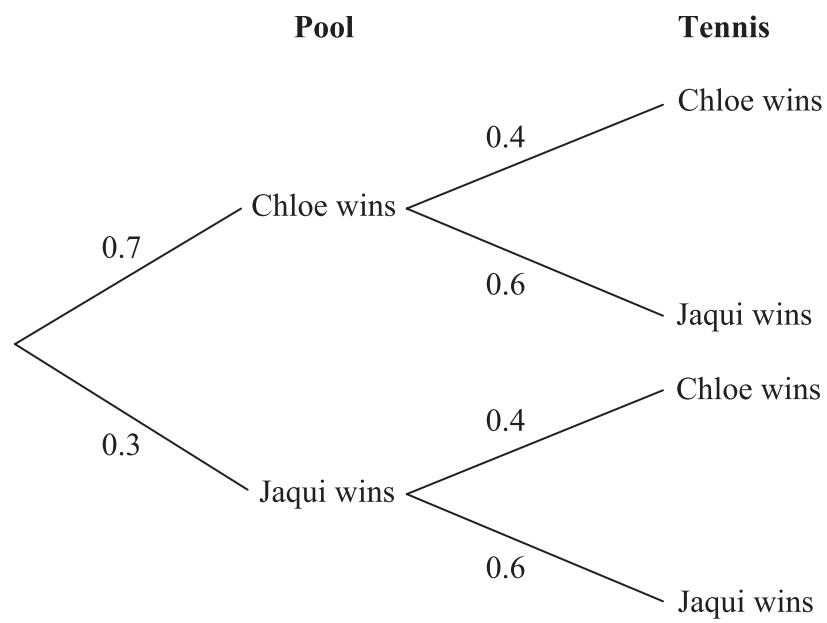
Q3



Leave blank

4. Chloe and Jaqui play each other in one game of pool and one game of tennis.

The probability that Chloe will win at pool is 0.7
The probability that Jaqui will win at tennis is 0.6



Work out the probability that Chloe and Jaqui will each win one game.

Q4

.....
(Total 2 marks)

TOTAL FOR SECTION B: 15 MARKS

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