

S033 Frequency diagrams 2

Q1.

120 people were at a hockey match.

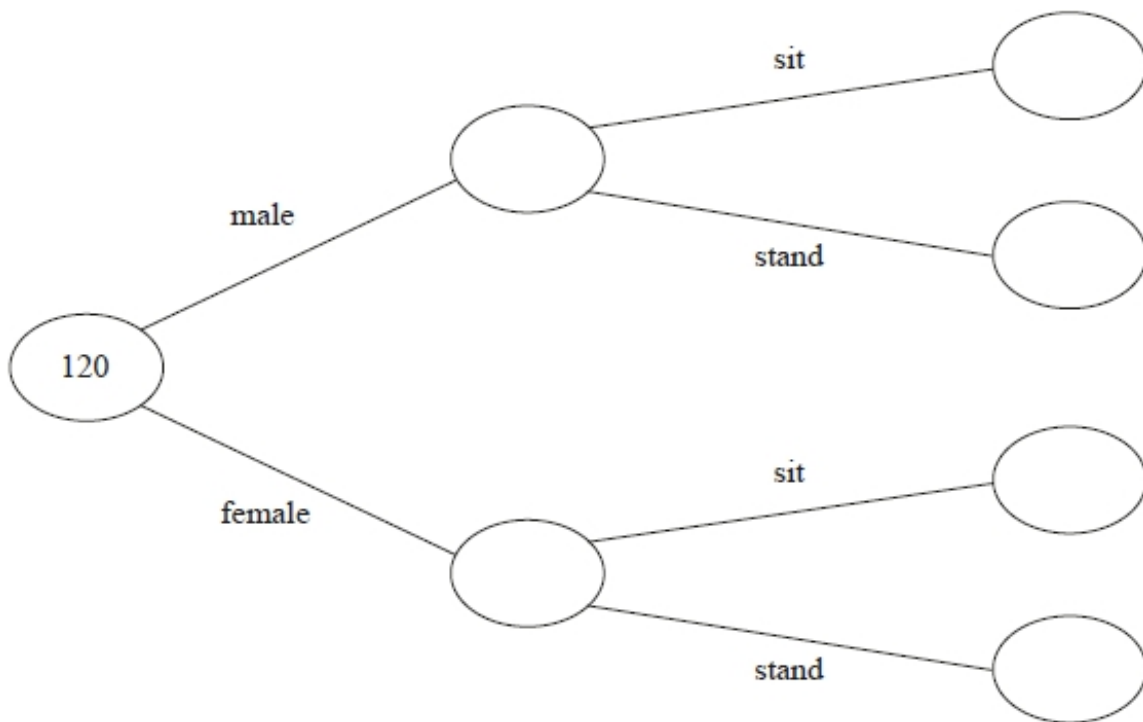
Each person was asked if they wanted to stand or to sit to watch the match.

75 of the people were female

29 of the males wanted to stand

30 of the people wanted to sit

(a) Use this information to complete the frequency tree.



(3)

One of the 120 people is chosen at random.

(b) Write down the probability that this person is a male who wanted to stand.

.....

(1)

(Total for question = 4 marks)

Q2.

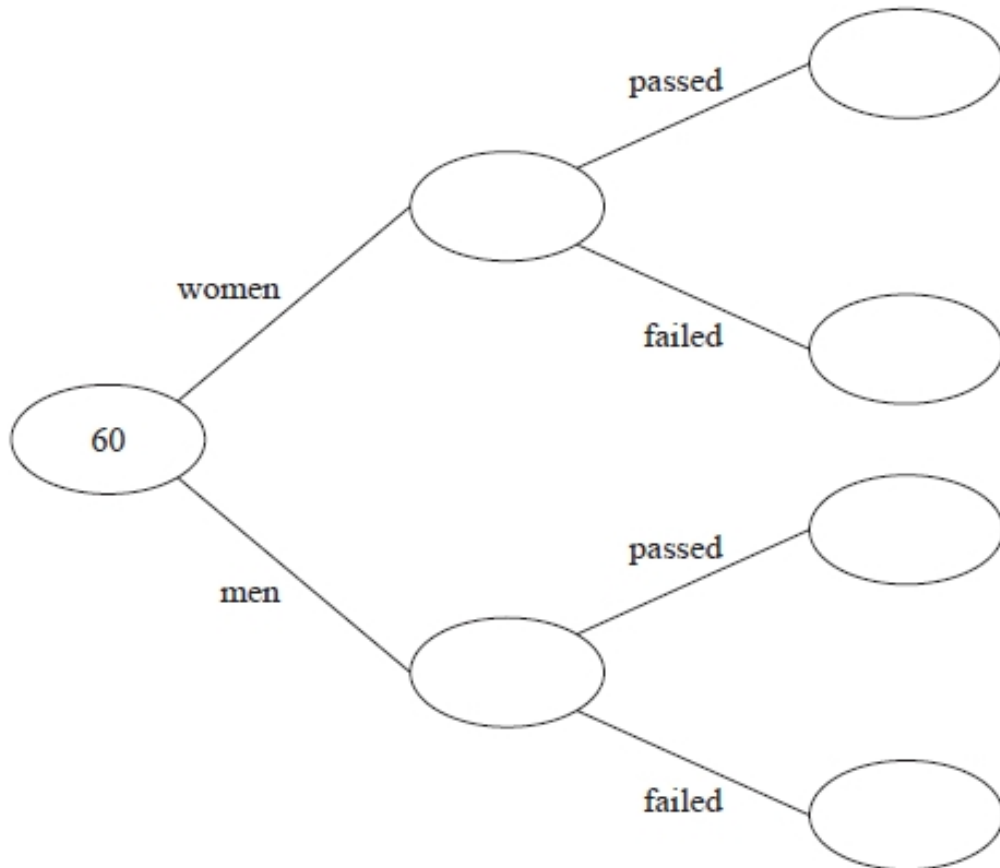
60 people each took a driving test one day.

21 of these people were women.

18 of the 60 people failed their test.

27 of the men passed their test.

(a) Use this information to complete the frequency tree.



(3)

One of the men is chosen at random.

(b) Work out the probability that this man failed his test.

.....
(2)

(Total for question = 5 marks)

Q3.

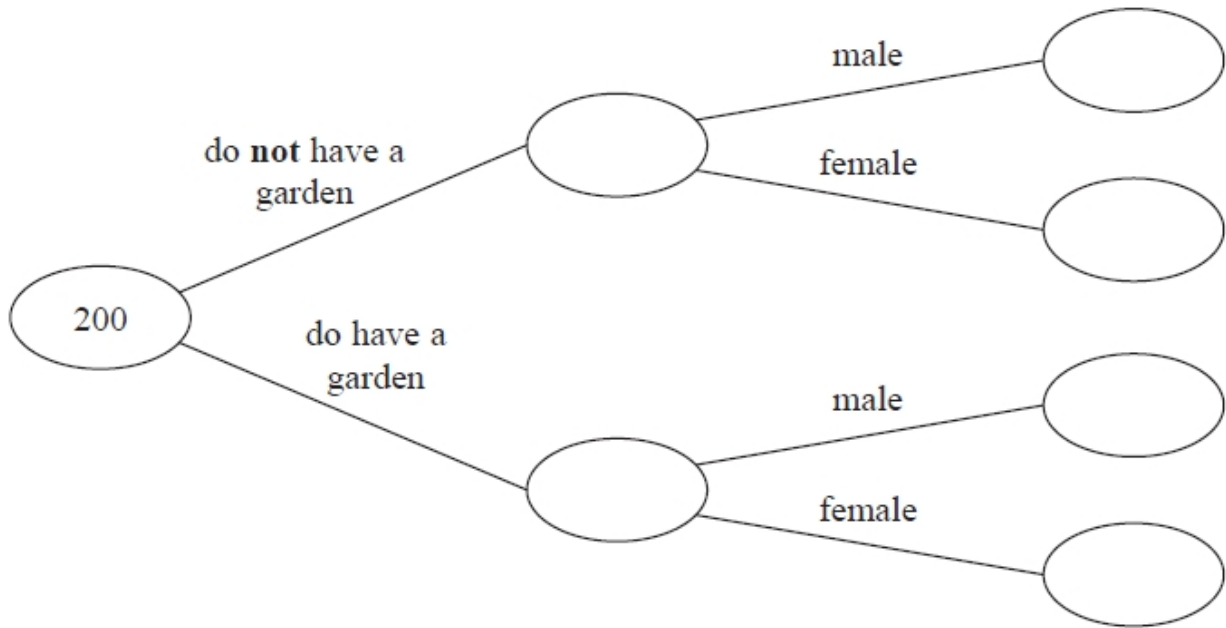
200 people live in a village.

23 people do **not** have a garden.

10 males do **not** have a garden.

95 people are male.

(a) Use this information to complete the frequency tree.



(3)

One of the people who does **not** have a garden is chosen at random.

(b) Write down the probability that this person is female.

.....

(2)

(Total for question = 5 marks)

Q4.

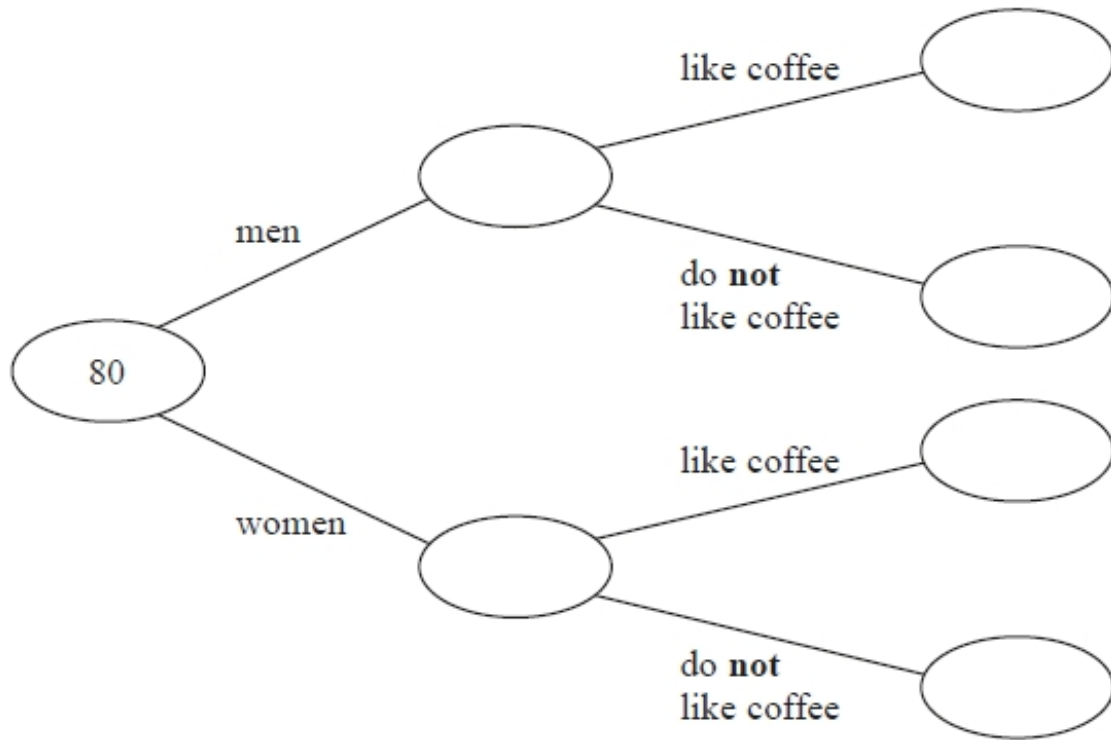
80 people are asked if they like coffee.

48 of these people are women.

61 of the 80 people like coffee.

8 of the men do **not** like coffee.

(a) Use this information to complete the frequency tree.



(3)

One of the people who like coffee is chosen at random.

(b) Find the probability that this person is a woman.

.....
(2)

(Total for question = 5 marks)

Q5.

100 students had some homework.

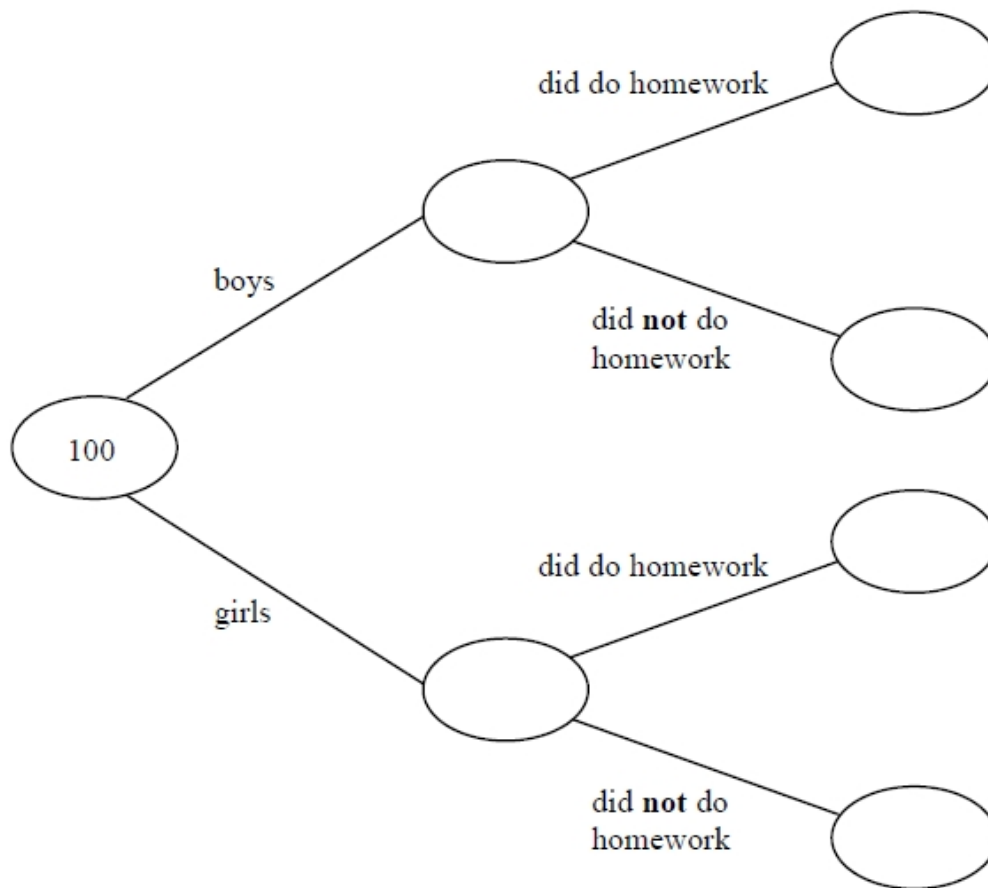
42 of these students are boys.

8 of the 100 students did **not** do their homework.

53 of the girls did do their homework.

(a) Use this information to complete the frequency tree.

(3)



One of the girls is chosen at random.

(b) Work out the probability that this girl did **not** do her homework.

.....
(2)

(Total for question = 5 marks)

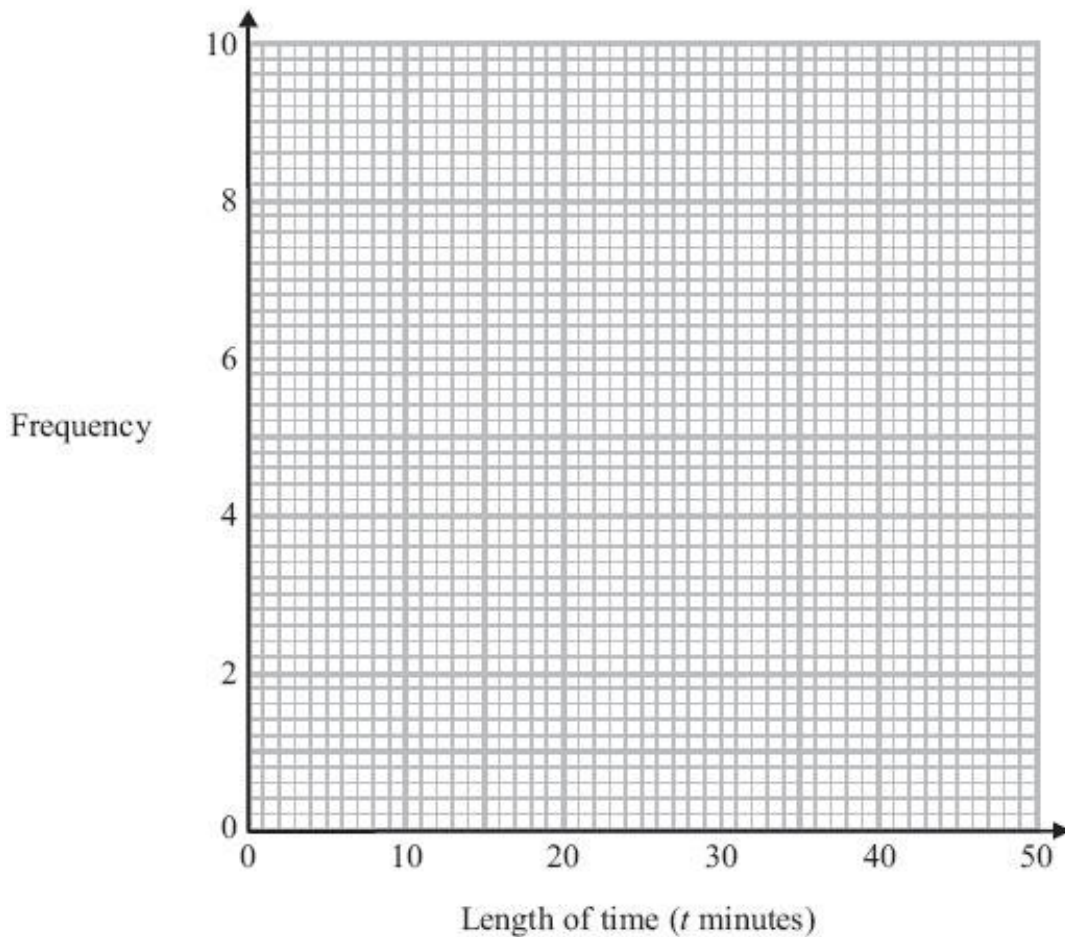
Q6.

Helen went on 35 flights in a hot air balloon last year.

The table gives some information about the length of time, t minutes, of each flight.

Length of time (t minutes)	Frequency
$0 < t \leq 10$	6
$10 < t \leq 20$	9
$20 < t \leq 30$	8
$30 < t \leq 40$	7
$40 < t \leq 50$	5

On the grid below, draw a frequency polygon for this information.



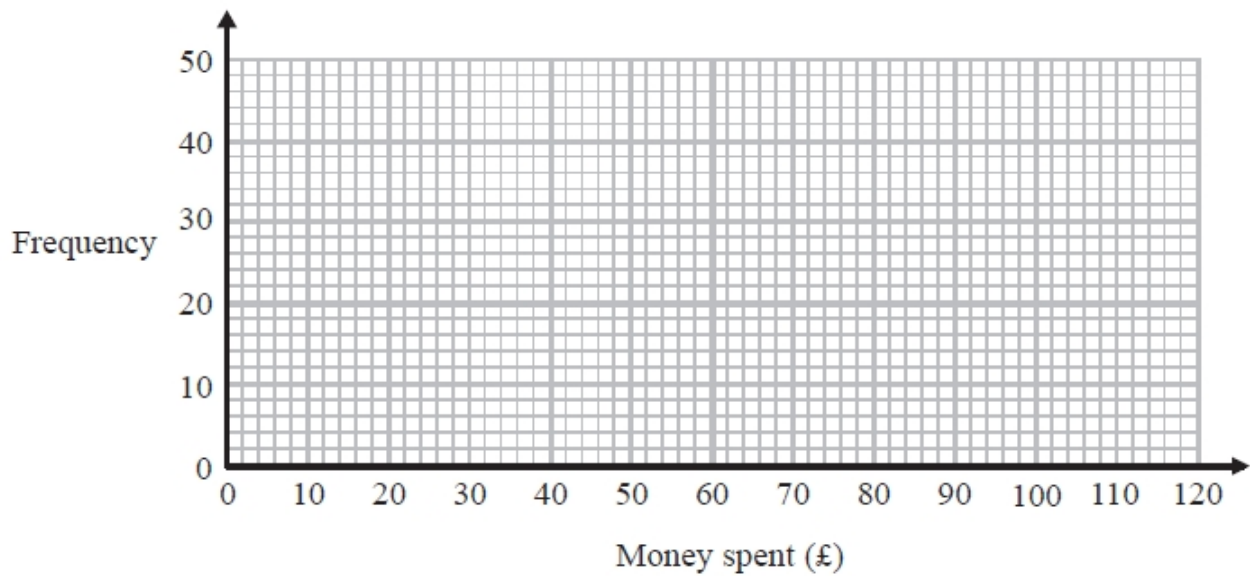
(Total for Question is 2 marks)

Q7.

The table gives information about the money, £ A , some people spent on an internet site one day.

Money spent (£ A)	Frequency
$0 < A \leq 20$	10
$20 < A \leq 40$	15
$40 < A \leq 60$	25
$60 < A \leq 80$	40
$80 < A \leq 100$	6

(a) On the grid, draw a frequency polygon for this information.



(2)

(b) Write down the modal class interval.

.....

(1)

(Total for question = 3 marks)

Q8.

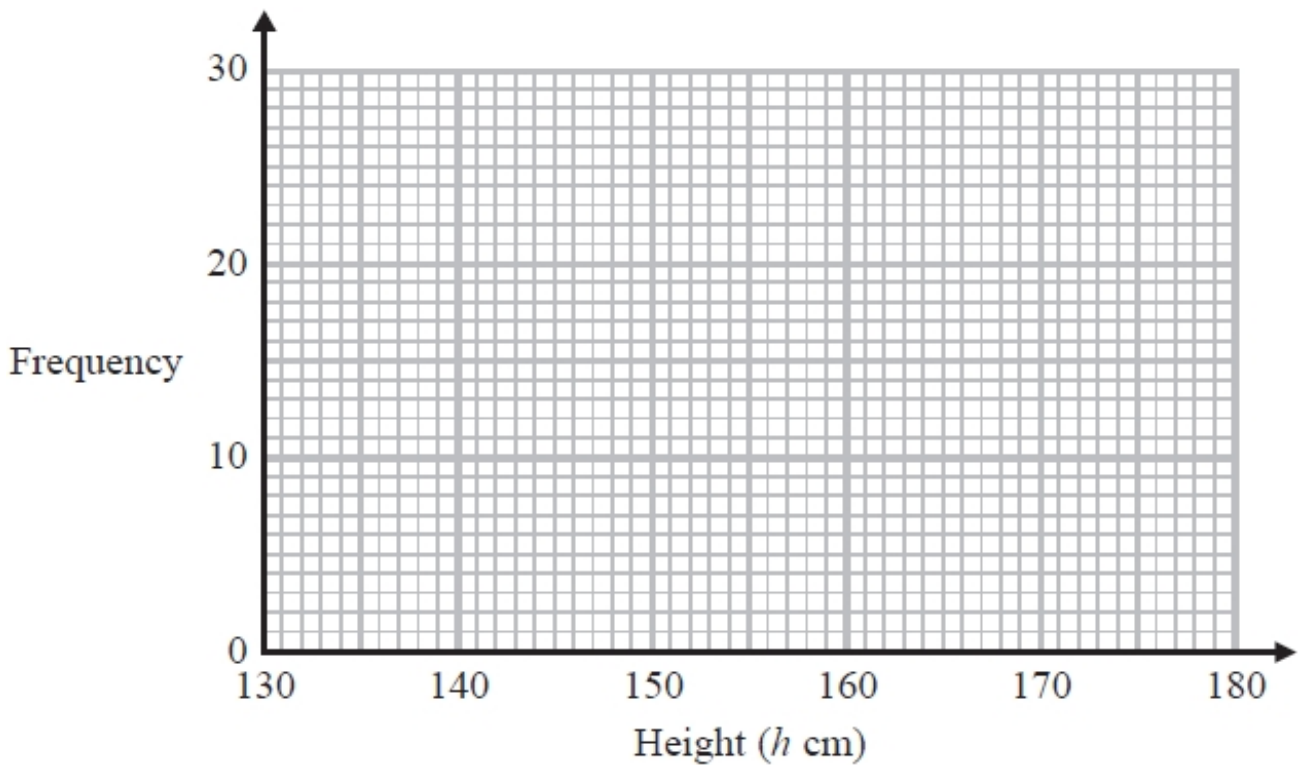
The table shows information about the heights of 80 children.

Height (h cm)	Frequency
$130 < h \leq 140$	4
$140 < h \leq 150$	11
$150 < h \leq 160$	24
$160 < h \leq 170$	22
$170 < h \leq 180$	19

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

.....
(1)

(b) Draw a frequency polygon for the information in the table.



(2)

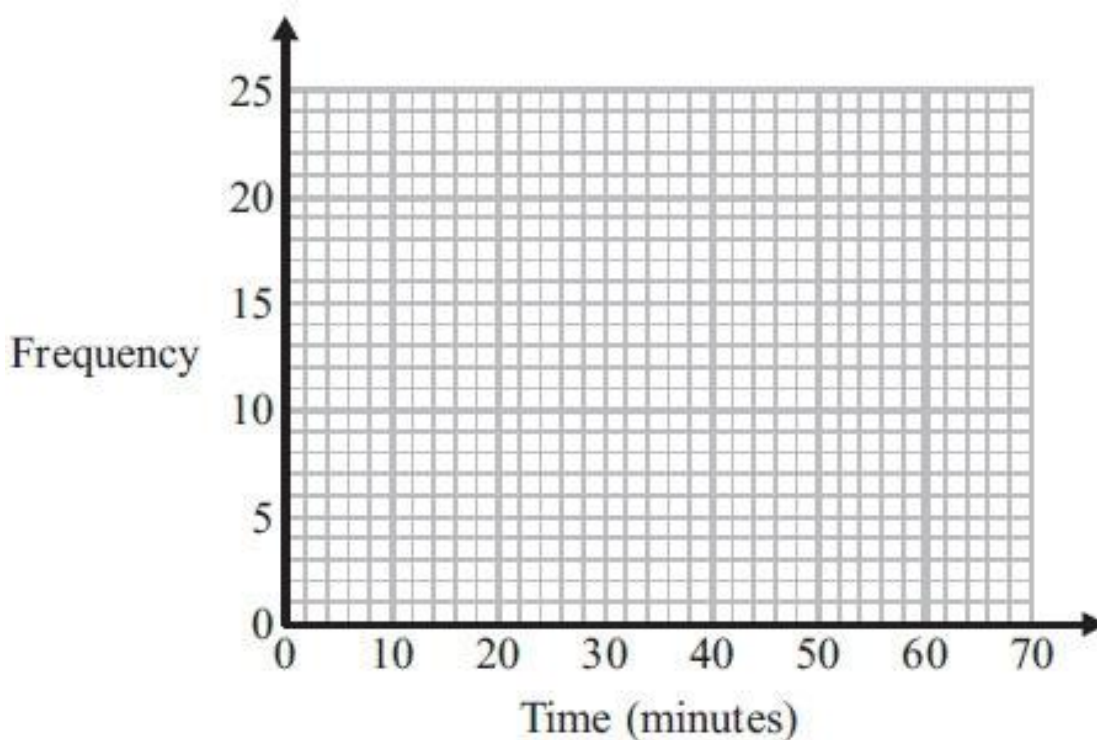
(Total for question = 3 marks)

Q9.

The frequency table gives information about the times it took some office workers to get to the office one day.

Time (t minutes)	Frequency
$0 < t \leq 10$	4
$10 < t \leq 20$	8
$20 < t \leq 30$	14
$30 < t \leq 40$	16
$40 < t \leq 50$	6
$50 < t \leq 60$	2

(a) Draw a frequency polygon for this information.



(2)

(b) Write down the modal class interval.

.....

(1)

One of the office workers is chosen at random.

(c) Work out the probability that this office worker took more than 40 minutes to get to the office.

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(2)

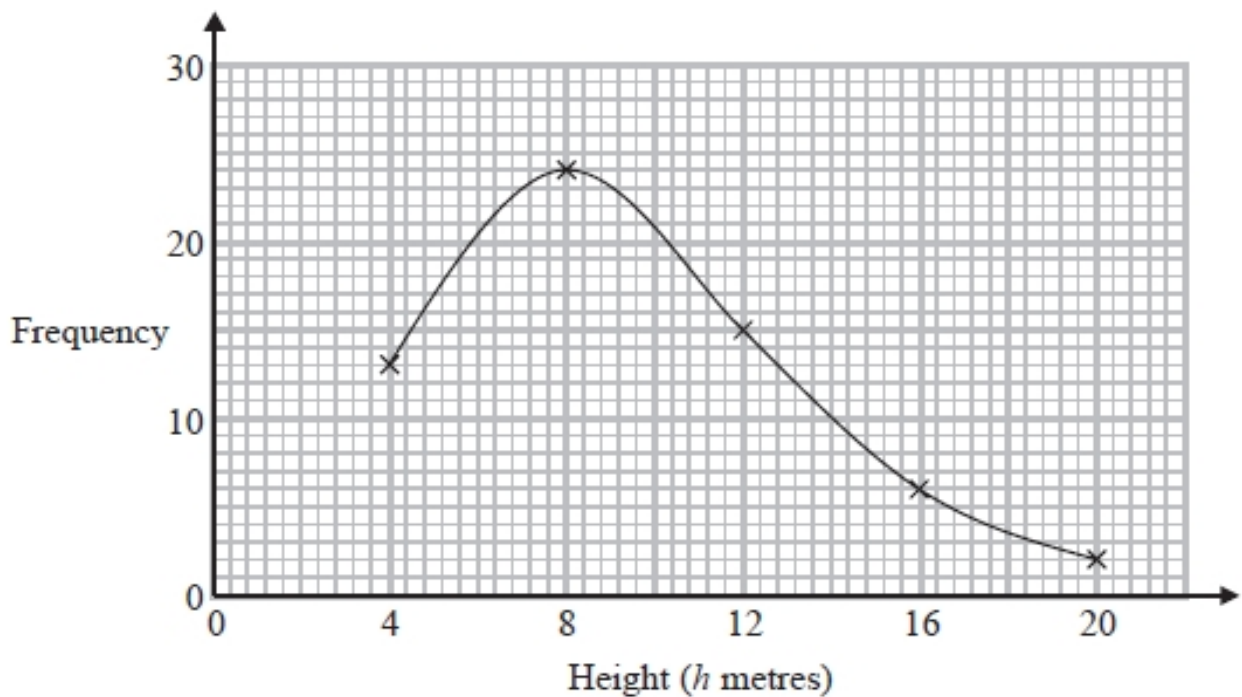
(Total for Question is 5 marks)

Q10.

The table shows information about the heights of 60 trees.

Height (h metres)	Frequency
$0 < h \leq 4$	13
$4 < h \leq 8$	24
$8 < h \leq 12$	15
$12 < h \leq 16$	6
$16 < h \leq 20$	2

Jacob drew this frequency polygon for the information in the table. The frequency polygon is **not** correct.



Write down **two** things that are wrong with the frequency polygon.

- 1
- 2

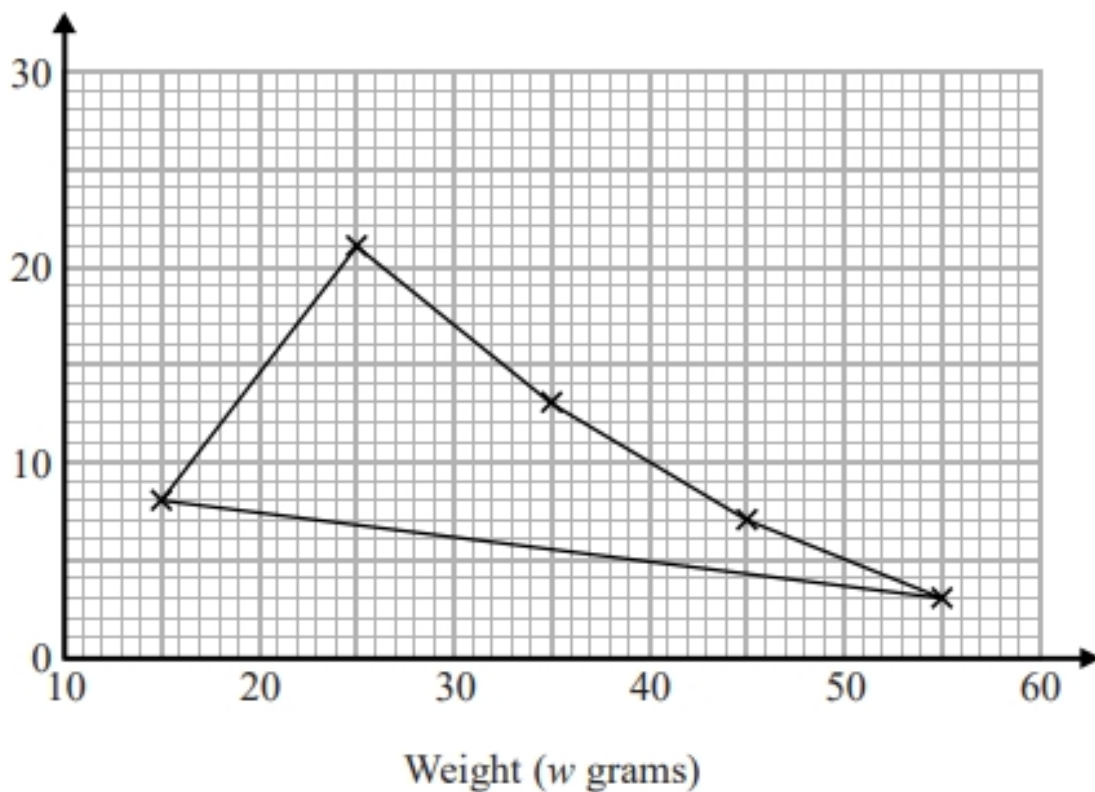
(Total for question = 2 marks)

Q11.

The table shows some information about the weights of 50 potatoes.

Weight (w grams)	Frequency
$10 < w \leq 20$	6
$20 < w \leq 30$	21
$30 < w \leq 40$	13
$40 < w \leq 50$	7
$50 < w \leq 60$	3

Iveta drew this frequency polygon for the information in the table. The frequency polygon is **not** fully correct.



Write down **two** things that are wrong with the frequency polygon.

- 1
-
- 2
-

(Total for question = 2 marks)