

Name: \_\_\_\_\_

## ASM Tuition Academy

### HISTOGRAMS

#### Instructions:

- Use **black** ink or ball-point pen.
- Answer all questions.
- Answer the questions in the spaces provided  
- there may be more space than you need.
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- You must **show all you're working out**.

#### Information:

- The marks for each question are shown in brackets  
- use this as a guide as to how much time to spend on each question.

#### Advice:

- Read each question carefully before you start to answer it.
- Keep an eye on time.
- Try to answer every question.
- Check your answers if you have time at the end.

Q1- The table shows information about the height of 80 pillars

Height (cm)	Frequency
$10 \leq \text{Height} < 20$	5
$20 \leq \text{Height} < 30$	12
$30 \leq \text{Height} < 40$	18
$40 \leq \text{Height} < 50$	10
$50 \leq \text{Height} < 60$	5

On the grid, draw a histogram for the information in the table.



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(Total for Question 1 is 3 marks)

Q2- The table shows information about the speed, in mph, of some trucks.

Speed (mph)	Frequency
$20 \leq \text{Speed} < 25$	5
$25 \leq \text{Speed} < 35$	12
$35 \leq \text{Speed} < 45$	18
$45 \leq \text{Speed} < 55$	10
$55 \leq \text{Speed} < 70$	5

(a) On the grid, draw a histogram for the information in the table.



(2)

(b) Work out an estimate for the number of cars over 45mph

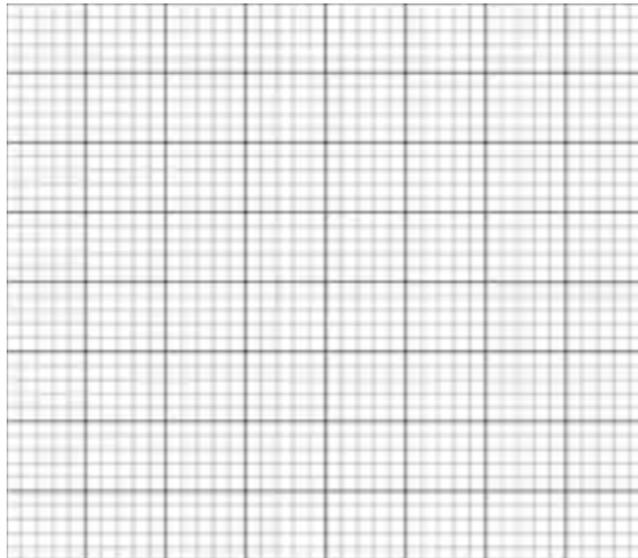
(2)

(Total for Question 2 is 4 marks)

Q3- The table shows information about the weight of 45 calves.

Weight (kg)	Frequency
$40 < w \leq 55$	7
$55 < w \leq 65$	14
$65 < w \leq 70$	10
$70 < w \leq 85$	10
$85 < w \leq 100$	4

(a) On the grid, draw a histogram for the information in the table.



(3)

(b) Find an estimate for the median

-----Kg

(2)

(Total for Question 3 is 5 marks)

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Q4- The table shows information about the time, in seconds, taken for some students to run a 100-meter race.

Time (s)	Frequency
$10 \leq t < 12$	5
$12 \leq t < 13$	18
$13 \leq t < 14$	25
$14 \leq t < 16$	
$16 \leq t < 20$	12

(a) Use the information on the table to complete the histogram.



(b) Use the histogram to complete the table

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(Total for Question 4 is 4 marks)

Q5- The table shows information about the time, in seconds, taken for some people to complete a task.

Time (s)	Frequency
$10 \leq t < 25$	8
$25 \leq t < 35$	15
$35 \leq t < 40$	16
$40 \leq t < 55$	
$55 \leq t < 70$	5

(a) Use the information on the table to complete the histogram.

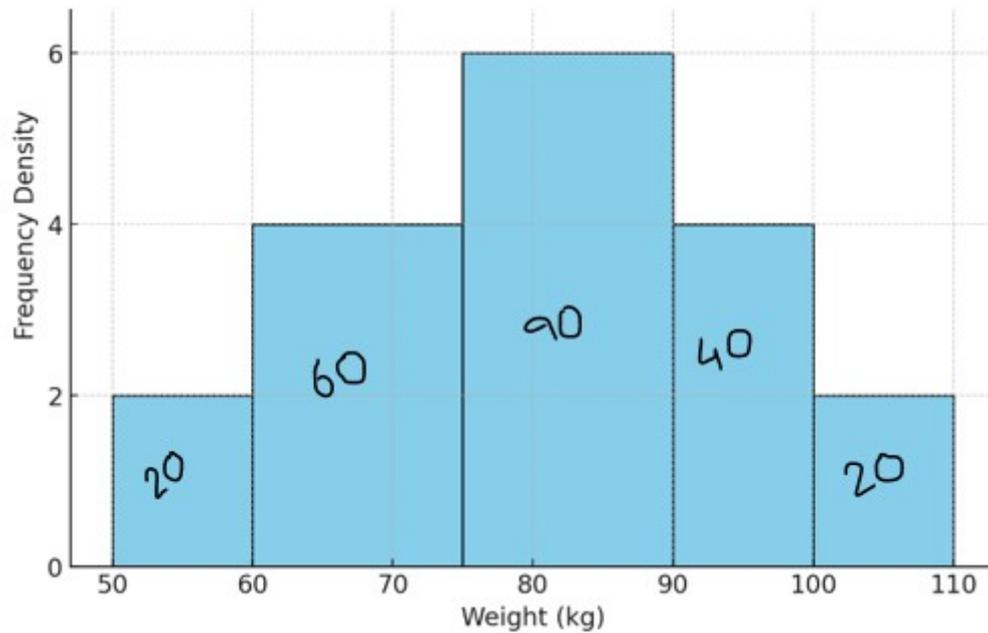


(b) Use the histogram to complete the table

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(Total for Question 5 is 4 marks)

Q6- The histogram shows information about the weight of calves.



20 calves weigh between 50 and 60 Kg

(a) Work out an estimate for the number of calves which weigh more than 90kg.

(3)

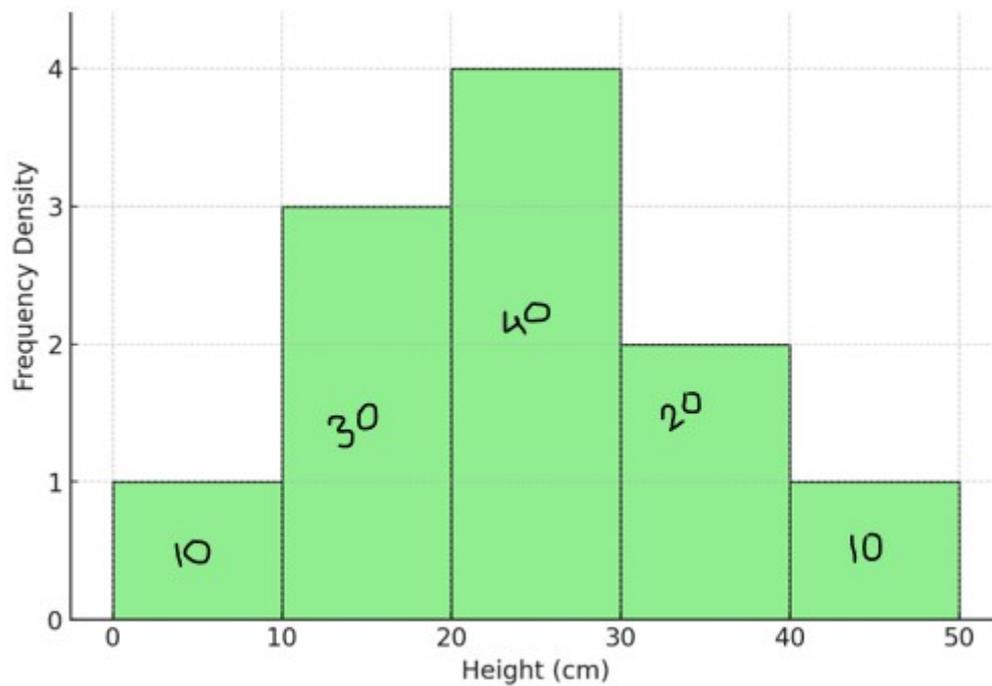
b) Explain why your answer to part a is only an estimate

(1)

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(Total for Question 6 is 4 marks)

Q7) The histogram shows information about the height of some trees.



(a) Work out an estimate for the proportion of trees over <sup>40</sup>cm tall.

(3)

(b) Explain why your answer to part a is only an estimate

(1)

(Total for Question 7 is 4 marks)