Histograms

(a)

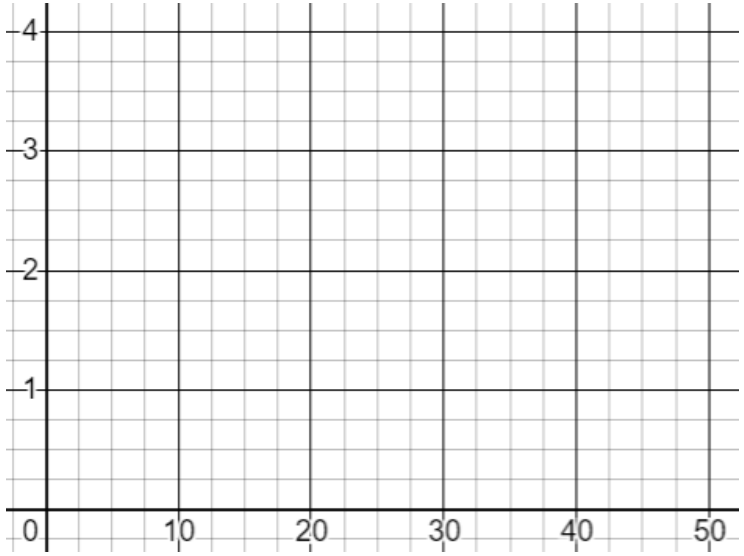
The distance travelled to work by 50 employees is recorded in a grouped frequency table.

(a) Calculate the frequency density for each class.

Distance (km)	Frequency		
$0 < d \leq 5$	12		
$5 < h \leq 10$	16		
$10 < h \leq 20$	10		
$20 < h \leq 30$	7		
$30 < h \leq 50$	5		

(b) Plot a histogram.

(c) Use your histogram to estimate the number of people who travel at least 12 km to work.



(b)

The house prices of 100 houses in a village are recorded in a grouped frequency table.

(a) Use the information in the table to calculate frequency densities and plot a histogram.

(b) Use your histogram to estimate the percentage of houses that cost less than £270 000.

House Price (£ *thousands*)	Frequency
$0 < p \leq 100$	6
$100 < p \leq 200$	22
$200 < p \leq 250$	18
$250 < p \leq 300$	35
$300 < p \leq 500$	15
$500 < p \leq 1000$	4

(c)

The time taken, in minutes, by 50 students to solve a maths puzzle is recorded in a grouped frequency table.

(a) Plot a histogram to represent this data.

(b) Use your histogram to find the median time taken.

Time Taken (minutes)	Frequency
$0 < t \leq 2$	4
$2 < t \leq 4$	7
$4 < t \leq 5$	10
$5 < t \leq 6$	12
$6 < t \leq 7$	11
$7 < t \leq 12$	6