Name: _____

Histogram Calculations (step by step)

The area of each bar on the histogram represents the frequency, because the data intervals are not equal. The interval width is used to calculate the height of each rectangular bar – this is the frequency density. Round to 1dp, where appropriate.

Question 1

Pocket money (£)	Interval width	Frequency	Frequency density
0 < m ≤ 5	5 – 0 = 5	3	3 ÷ 5 = 0.6
5 < m ≤ 12	12 – 5 = 7	14	14 ÷ 7 =
12 < m ≤ 18	18 – 12 = 6	9	9 ÷ 6 =
18 < m ≤ 20	20 – 18 = 2	1	1 ÷ 2 =

Question 2

Height (cm)	Interval width	Frequency	Frequency density
110 < h ≤ 120	120 – 110 = 10	4	4 ÷ 10 = 0.4
120 < h ≤ 135	135 – 120 =	8	8 ÷ =
135 < h ≤ 160	160 – 135 =	15	15 ÷ =
160 < h ≤ 180	180 – 160 =	2	2 ÷ =

Question 3

Distance (km)	Interval width	Frequency	Frequency density
0 < d ≤ 70	70 – 0 =	10	
70 < d ≤ 90	90 - =	4	
90 < d ≤ 145	145 - =	8	
145 < d ≤ 150	150 - =	5	

Question 4

Weight (g)	Interval width	Frequency	Frequency density
2 < w ≤ 7		5	
7 < w ≤ 22		7	
22 < w ≤ 37		10	
37 < w ≤ 50		8	

Question 5

Now plot each of these histograms on graph paper with appropriate scales and axes