

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
$0 < m \leq 5$	$5 - 0 = 5$	3	$3 \div 5 = 0.6$
$5 < m \leq 12$	$12 - 5 = 7$	14	$14 \div 7 =$
$12 < m \leq 18$	$18 - 12 = 6$	9	$9 \div 6 =$
$18 < m \leq 20$	$20 - 18 = 2$	1	$1 \div 2 =$

### Question 2

Height (cm)	Interval width	Frequency	Frequency density
$110 < h \leq 120$	$120 - 110 = 10$	4	$4 \div 10 = 0.4$
$120 < h \leq 135$	$135 - 120 =$	8	$8 \div =$
$135 < h \leq 160$	$160 - 135 =$	15	$15 \div =$
$160 < h \leq 180$	$180 - 160 =$	2	$2 \div =$

### Question 3

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

### Question 4

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

### Question 5

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

At the end of the task, reflect on your progress:

Concentration/Effort	Red	Amber	Green
Understanding	3	2	1