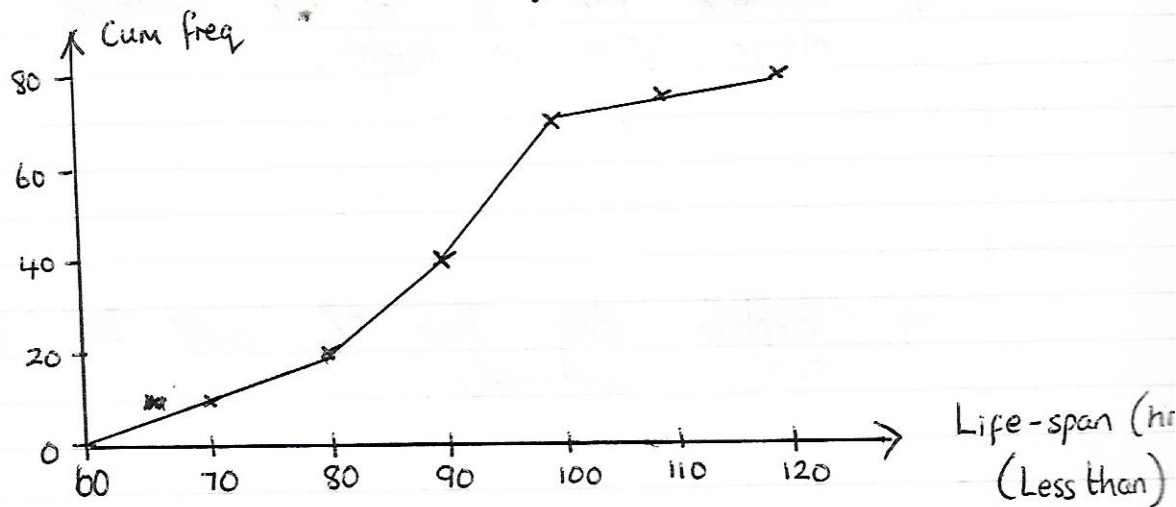


Year 11 : Numeracy Mock Prep

Paper 1 : No Calculator Sheet 2

- i) A leaf on a tree has an average weight of 0.06g .
- What is this in standard form?
 - The weight of all the tree's leaves in total is 18.9kg . Calculate how many leaves are on the tree.
 - If this number of leaves is the average for any tree of this type calculate the weight of all the leaves in a woodland which has 2×10^5 such trees.

- 2) The diagram is a cumulative frequency polygon showing the life-span of a number of light-bulbs.



- Estimate the median life-span.
- Estimate the interquartile range.
- Estimate how many bulbs lasted less than 85 hours.
- Estimate the % of bulbs that lasted MORE than 95 hours.

- 3) The table below shows the height in metres of a number of buildings in a town.

^(h) Height (m)	Frequency	Freq Density
$0 < h < 10$	20	
$10 \leq h < 20$	80	
$20 \leq h < 30$	60	
$30 \leq h < 50$	40	
$50 \leq h < 100$	40	

a) Complete the frequency density table

b) Draw a histogram

c) Estimate the median height of a building.

d) Estimate the % of the buildings that are above 40m in height.

e) Explain why this % could be as much as 8.3% inaccurate.