

OGIVES

INVESTIGATION

HOW MANY PEOPLE LIVE IN OUR STATE?



A class was asked to indicate the total number of people staying in their house last night.

Q1. Collect class data and construct a frequency table like this:

Score (x)	Tally	Frequency (f)	Frequency x Score (fx)	Cumulative Frequency

Q2. Use these data to construct a frequency histogram.

Q3. Calculate the mode, mean, and median number of individuals in a household. (Show all working)

Q4. What fraction of households contains 3 individuals?

Q5. What percentage of households contains 4 individuals? (Show all working)

Q6. What is the most likely number of people living in a randomly selected house?

Q7. What is the probability that a randomly selected house would contain 5 people? (Show all working)

Q8. In a street of 50 houses, how many would you expect to contain 4 individuals?

Q9. A developer is building a new housing estate with 1,400 houses. How many would need more than 3 bedrooms? (Assume 1 person per bedroom) (Show all working)

Q10. Our state contains 150,000 dwellings, use your data to estimate the total population. (Show all working)

Q11. Do you think your answer to Q10 is an accurate estimate (consider the sample & the population)?