Statistics

REVIEW IT!

1 The table shows information about the amount of pocket money per week each student in a class receives.

Amount of pocket money (£a per week)	Number of students
$2 < a \leq 4$	6
$4 < a \leq 6$	15
$6 < a \leq 8$	9
$8 < a \leq 10$	6

a How many students are there in the class?

b Work out an estimate for the mean amount of pocket money for the class.

c Write down the modal class interval.

2 The table shows the marks 100 students got in an exam.

Mark (m)	Frequency
$0 < m \leq 20$	6
$20 < m \leq 40$	19
$40 < m \leq 60$	39
$60 < m \leq 80$	21
$80 < m \leq 100$	15

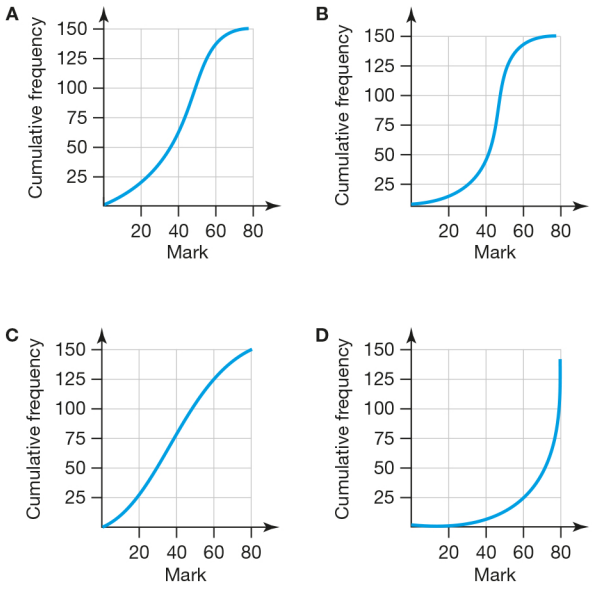
a Draw the cumulative frequency curve for this information.

b Use your graph to work out the median mark for the class.

It has been decided to set the pass mark so that only 75% of the students pass the exam.

c Use the graph to find the minimum mark needed to pass the exam.

3 Four schools, A, B, C and D, each have 150 students. They take the same examination, with a maximum mark of 80. The cumulative frequency graphs for each school are shown.



a Which school had the highest median mark?

b Which school had the largest interquartile range?

c Which school performed best in the exam? Give reasons for your answer.

4 Alex and Nadia are organising a street party for 320 people. They interview a sample of 40 people in the street.

a How should they select their sample?

b One question they asked was about what people would drink. The table shows their results.

Drink	Number of people
Cola	7
Lemonade	15
Squash	5
Tea	10
Coffee	3

How many people should they buy lemonade for?