OGIVES
APPLICATIONS
COMPETITIONS

For each of the data below, complete the following:
(a) What is the range?
(b) Calculate the mean.
(c) What is the mode (modal class)?
(d) Use the cumulative frequency column of the table to calculate the lower quartile, median and the upper quartile.
(e) Using your calculations from (d), calculate the interquartile range.
(f) Draw the ogive (cumulative frequency graph).
(g) From the ogive, find the median.
(h) From the ogive, find the 80th percentile.

Q1. PIZZA-EATING COMPETITION RESULTS

No. of Pizzas x	No. of Hungry Teenagers f	f x	Cumulative Frequency	Cumulative Percentage
1	6			
2	8			
3	7			
4	10			

Q2. WATERMELON SEED-SPITTING COMPETITION RESULTS

Spitting distance in metres x	No. of Students f	Mid-point	Frequency X Score	Cumulative Frequency	Cumulative Percentage
0 – 4	6				
5 - 9	9				
10 - 14	7				
15 - 19	5				

ANSWERS

	Q1	Q2
(a) Range	3	19
(b) Mean	2.67	9.04
(c) Mode	4	10 to 14
(d) Lower quartile	2	5 to 9
(d) Median	3	5 to 9
(d) Upper quartile	4	10 to 14
(e) IQR	2	9
(g) Median (from ogive)	2.2	6.5
(h) 80th percentile (from ogive)	3.4	12.5