

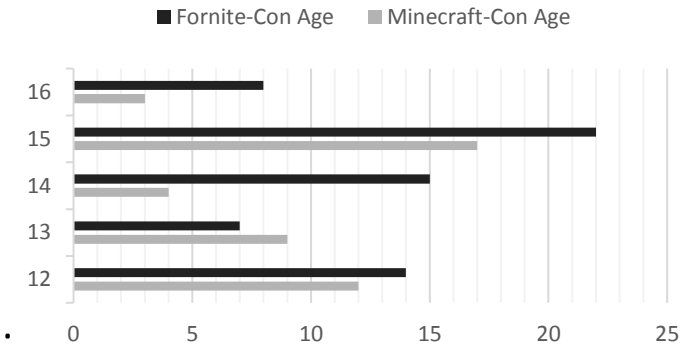
Mathematical Fluency - Statistics

GCSE Revision Sheet

Q1. The table displays information about the age, in years, of visitors to *Minecraft-Con*.

Age	12	13	14	15	16
Frequency	12	9	4	17	3

Age of visitors



- (a) Calculate the mean and range age of the visitors.
- (b) Draw a pie chart to represent this information.
- (c) The dual bar chart shows the visitors to both *Minecraft-Con* & *Fortnite-Con*. Complete a frequency table to show the visitors to *Fornite-Con*.

Q2. 95 students completed an art exam. The table, below, displays their results:

Marks	$0 < x \leq 10$	$10 < x \leq 20$	$20 < x \leq 30$	$30 < x \leq 40$	$40 < x \leq 50$	$50 < x \leq 60$	$60 < x \leq 70$
Frequency	3	12	19	30	18	11	2

- (a) Calculate an estimated mean art exam mark.
- (b) Plot a frequency polygon for this information.
- (c) Draw and use a cumulative frequency graph to calculate an estimated median mark & IQR.
- (d) The same 95 students completed a math exam. The math exam and the art exam have the same number of marks available. Their median maths mark is 42. The IQR of maths marks is 22. Using this information, **compare** the marks from the two exams.
- (e) Draw a box plot for the art exam marks.

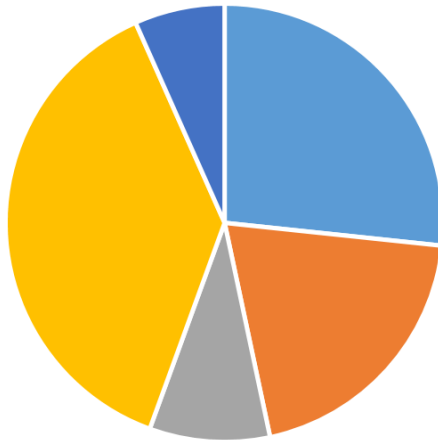
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Answers

Q1. (a) 13.7...

(b)

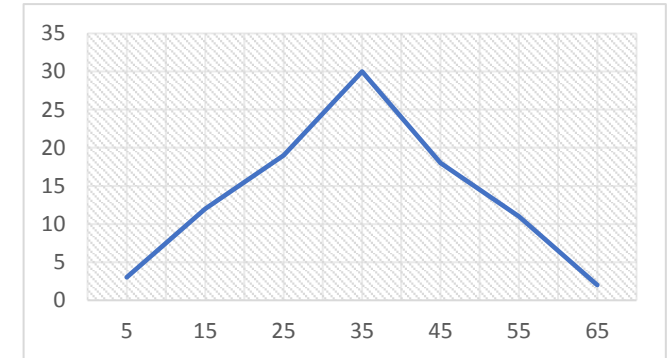


(c)

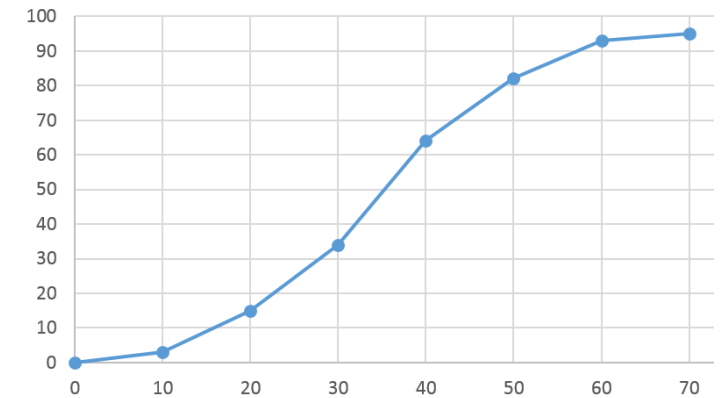
■ 12 ■ 13 ■ 14 ■ 15 ■ 16

Age	12	13	14	15	16
Frequency	14	7	15	22	8

Q2. (a) 34.4 (1dp) (b)



(c) Med: 34-36 LQ: 24-26 UQ: 43-45 IQR: 17-21



(d) The students did better on average in their math exam:
math med (42), art med (35).

The students were more consistent in their art exam:
math IQR (22), art IQR (19).

(e)

