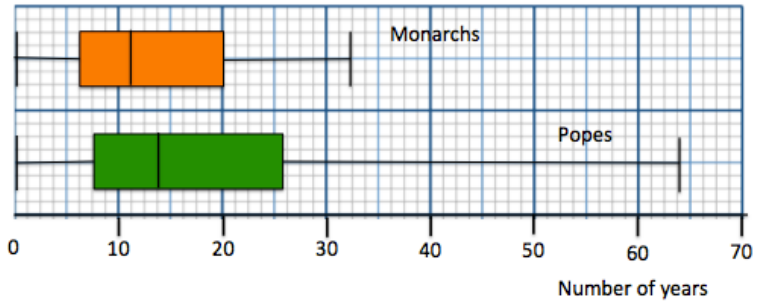
STATISTICS

Name:

BAM Indicator: Analyse data through measures of central tendency and spread, including quartiles

1. The box plots show the lengths of reigns of the last 19 popes and (English) monarchs. **F**



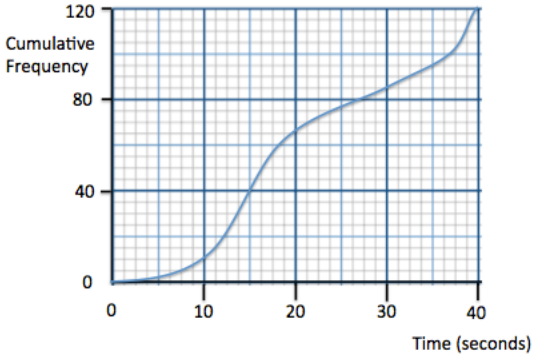
Compare the lengths of reigns of monarchs and popes.

2. Two cricket players both have a median score of 38, based on their last 20 matches. **R**

Player A's data has an interquartile range of 41.
Player B's data has an interquartile range of 20.

Which player would you prefer to select for the cricket team and why?

3. The cumulative frequency graph shows the time taken to respond to online help requests on a website for 120 customers. **A**



a) Find the median time taken to respond to an online help request.

_____

b) The website has a target to ensure that 80% of online help requests receive responses within 30 seconds. Did the website meet its target in this sample? Explain your answer fully.

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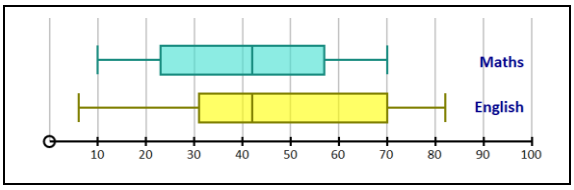
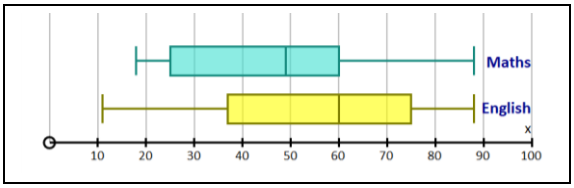
4. The box plots show information about results in tests. Match each statement to a box plot. Complete the missing box plot.

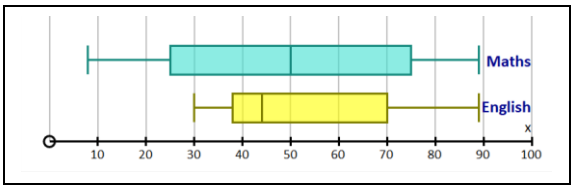
P



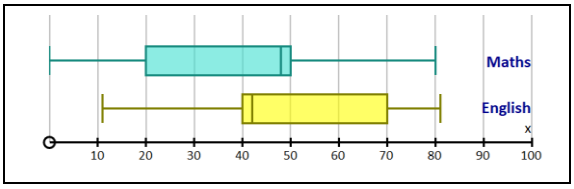
The middle 50% of both subjects' results were equally spread



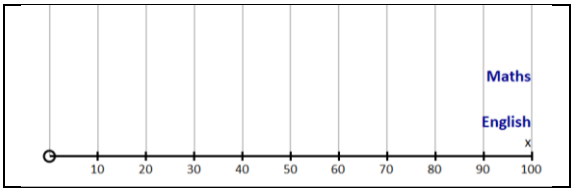
Results in English were more consistent than results in Maths



25% of the students achieved a higher score in English than anyone achieved in Maths



The maximum mark in English was half that in Maths



On average, students achieved a higher score in English than in Maths

M

5. Will says,

"*The interquartile range is less accurate than the range because not all data is included*"

Do you agree with Will? Explain why.

Overall, I think my success level is:	Low ○ ○ ○ ○ High

F = Fluency R = Reasoning P = Problem-solving A = Application M = Misconception

Q	**STATISTICS**	☺	☹
	I can find statistics from a cumulative frequency curve or box plot		
	I can compare the central tendency and spread of two data sets		
	I can use quartiles and other measures to make estimates about the population		

Improvements I could make:

Mathematical presentation	Method	Accuracy	Units

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