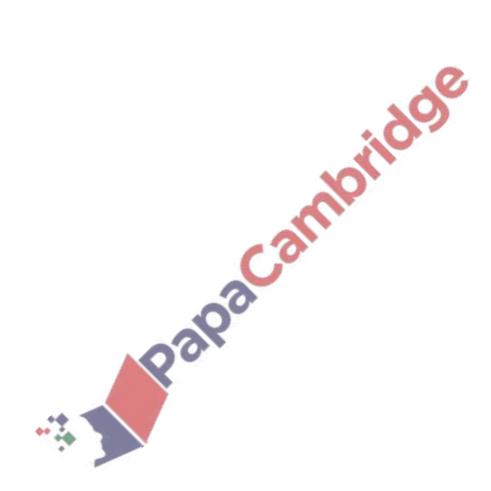
<u>Sampling and estimation–2023 March Cambridge AS & A Level Mathematics</u>

1. March/2023/Paper_9709/62/No.1

Anita carried out a survey of 140 randomly selected students at her college. She found that 49 of these students watched a TV programme called *Bunch*.

(a) Calculate an approximate 98% confidence interval for the proportion, *p*, of students at Anita's college who watch *Bunch*. [3]



Carlos says that the confidence interval found in (a) is not useful because it is too wide.

(b) Without calculation, explain briefly how Carlos can use the results of Anita's survey to find a narrower confidence interval for *p*. [1]

