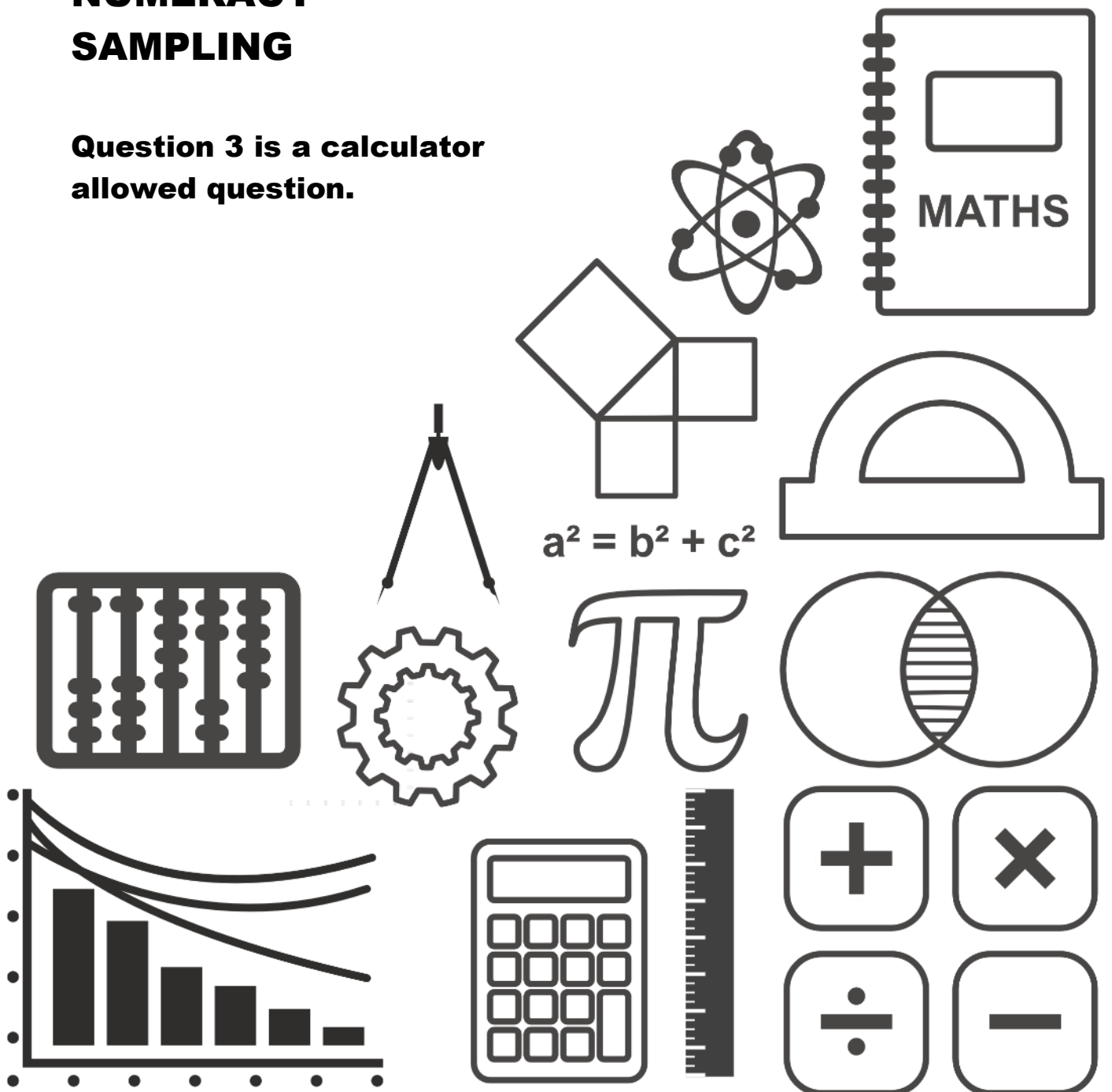


## GCSE TOPIC BOOKLET NUMERACY SAMPLING

**Question 3 is a calculator allowed question.**



1.

There are 600 pupils in a school.  
8 of these pupils are to be selected to discuss changes to the school uniform.

The headteacher has a spreadsheet of the names of all 600 pupils.  
There are 600 rows of pupil names in the spreadsheet, starting at row 1.  
There is one pupil name on each row.

The headteacher uses a systematic sampling method.

(a) The first pupil selected on the headteacher's list is a boy whose name is in the 25th row.

Give the row numbers in the spreadsheet of the other 7 pupils who would be selected.  
Complete the table below. [2]

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Pupil	1st	2nd	3rd	4th	5th	6th	7th	8th
Row in the spreadsheet	25th	.....	.....	.....	.....	.....	.....	.....

(b) Explain how the headteacher selected the first pupil. [1]

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2.

There is a queue of 96 people waiting to buy concert tickets.

Liam has 8 vouchers to hand out, offering 20% off ticket prices.

He has decided to use a systematic sampling method to select who receives these 8 vouchers.

Liam has randomly selected the 6th person in the queue to receive the first voucher.



Use the table below to give the positions in the queue of the 8 people who would receive vouchers. [2]

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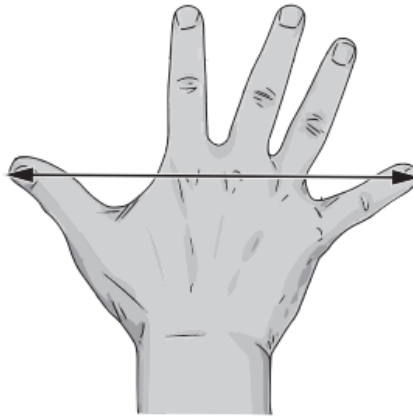
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Voucher	1	2	3	4	5	6	7	8
Position in the queue	6th	.....	.....	.....	.....	.....	.....	.....

3. Simon plans to make gloves.

One morning, Simon decided to carry out a survey to find the mean hand span of people in Wales.



He decided to sample systematically.

He decided to sample from the first 240 people who pass him in the street during the morning.

He wanted to take 20 people's hand span measurements.

Explain how Simon could use systematic sampling to obtain 20 measurements. [1]

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