Name: SOLUTIONS

GCSE (1 - 9) Capture Recapture	Solutions:

These questions represent all of the times that this topic has appeared in unlocked Pearson Edexcel GCSE maths papers as of July 2023.
More questions can be found at examq.co.uk

Question	Where the question appeared
1	Edexcel, GCSE, Autumn 2020, Paper 1F, Q16

1

Shirley wants to find an estimate for the number of bees in her hive.

On Monday she catches 90 of the bees.
She puts a mark on each bee and returns them to her hive.

On Tuesday she catches 120 of the bees.
She finds that 20 of these bees have been marked.

(a) Work out an estimate for the total number of bees in her hive.

$90 \times \frac{120}{20} = 540$

540

.....

(3)

Shirley assumes that none of the marks had rubbed off between Monday and Tuesday.

(b) If Shirley's assumption is wrong, explain what effect this would have on your answer to part (a).

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(1)

(Total for Question 16 is 4 marks)

[Edexcel, GCSE, Autumn 2020, Paper 1F, Q16]