

GCSE Biology A (Gateway)

J247/02 B4-B6 and B7 Foundation (Foundation Tier)

Question Set 27

1

A student investigates plants growing underneath a tree.



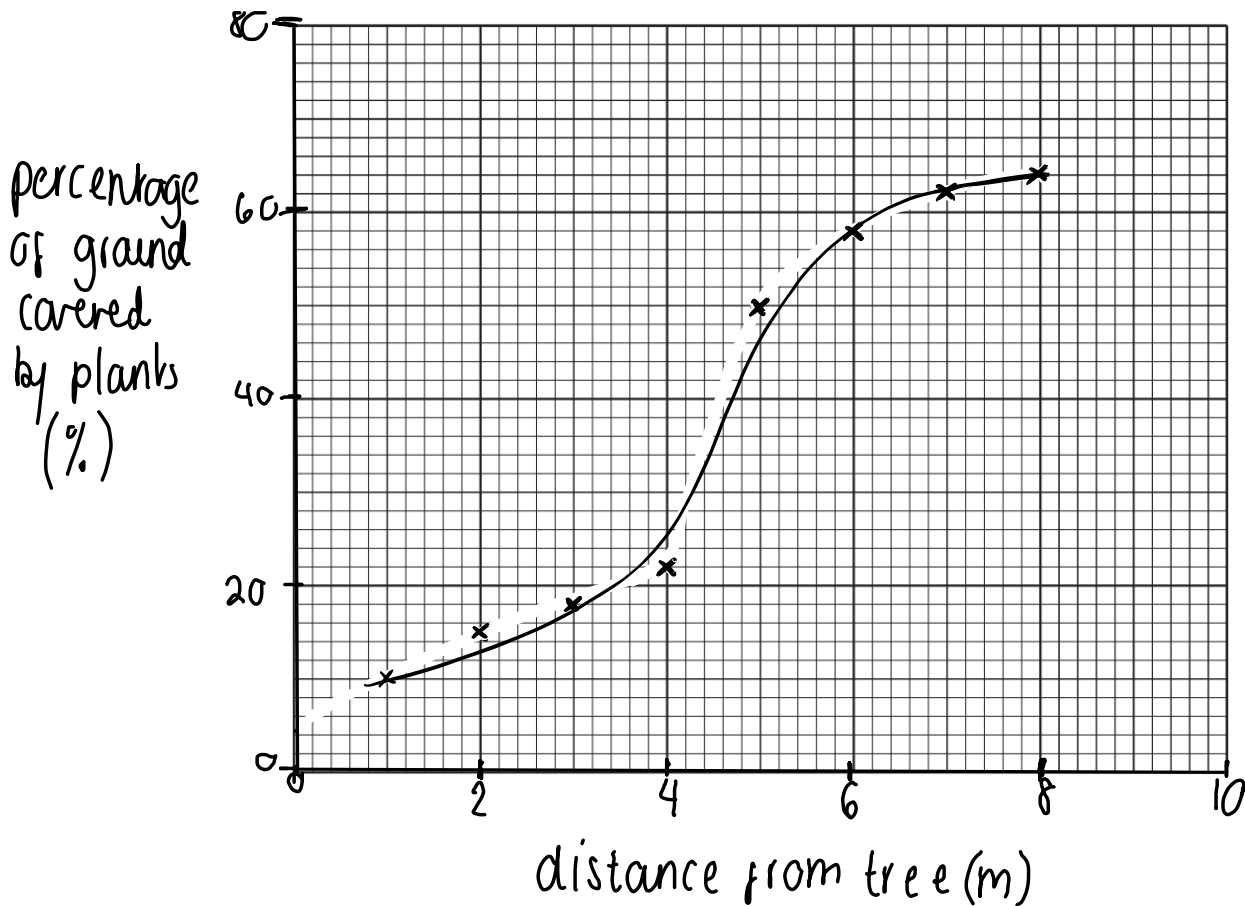
He lays out a tape measure on the ground, starting at the tree. He then places a quadrat on the ground.

He measures the percentage of the ground in the quadrat that is covered by plants. He repeats this every metre away from the tree.

The table shows his results.

Distance from the tree (m)	Percentage of ground covered by plants (%)
1	10
2	15
3	18
4	22
5	50
6	58
7	62
8	64

- (a) Plot a graph of the student's results and draw a line of best fit.



[5]

- (b) The student thinks that shade from the tree is affecting the plants.

Explain how the student's results show this.

As the distance from the tree increases, there is more plant coverage on the ground. Under the tree it is shaded, which means the plants on the ground are exposed to a lower light intensity. This means they are unable to photosynthesize as much as plants not shaded by the tree, so grow less.

Total Marks for Question Set 27: 9

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