

Part B

LICHEN

A result of global warming is that the ice of some glaciers is melting. Twelve years after the ice disappears, tiny plants, called lichen, start to grow on the rocks.

Each lichen grows approximately in the shape of a circle.

The relationship between the diameter of this circle and the age of the lichen can be approximated with the formula:

$$d = 7.0 \times \sqrt{(t - 12)} \text{ for } t \geq 12$$

where d represents the diameter of the lichen in millimetres, and ' t ' represents the number of years after the ice has disappeared.

QUESTION 17: Using the formula, calculate the diameter of the lichen, 16 years after the ice disappeared. Show your calculation.

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QUESTION 18: Alok measured the diameter of some lichen and found it was 35 millimetres. How many years ago did the ice disappear at this spot? Show your calculation.

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Solution for Part B is explained in Video Solution.