
FENCES

Question 2: FENCES

CM012Q02

Are the following statements about the length of fencing and the area of the garden bed true or false? Select “True” or “False” for each statement.

Statement	True or false?
If Linda wants to increase the area of her garden bed to be greater than the 525 square units she originally designed, then she will have to buy more fencing.	True / False
If Linda knows the area of the garden bed she wants, then the length of fencing that needs to be used is always the same.	True / False

Translation note: the term “units” cannot be adapted into metric or imperial measures. However, if needed, please adapt “square” in using your country convention. For example: “units²” or “units squared”.

SCORING

QUESTION INTENT

Description: Analyse the influence of the transformation of a rectangular shape on its perimeter and area and the relationship between the two values

Mathematical content area: Space and shape

Context: Occupational

Process: Formulate

Correct

Two correct responses: False, False in that order

Incorrect

Other responses.

Missing.

Question 3: FENCES

CM012Q03

Are the following statements about the length of fencing and the shape and area of the garden bed true or false? Select “True” or “False” for each statement.

Statement	True or false?
If Linda uses a fixed length of fencing, then the maximum area she can obtain for rectangular gardens is when the shape is a square.	True / False
If Linda uses the same length of fencing, then a circle shaped garden bed gives her a smaller area compared to a square shaped garden bed.	True / False

SCORING**QUESTION INTENT**

Description: Compare the relationship between perimeter and area for rectangles and circles

Mathematical content area: Space and shape

Context: Occupational

Process: Employ

Full Credit

Two correct responses: True, False in that order

Incorrect

Other responses.

Missing.