Inverse Functions

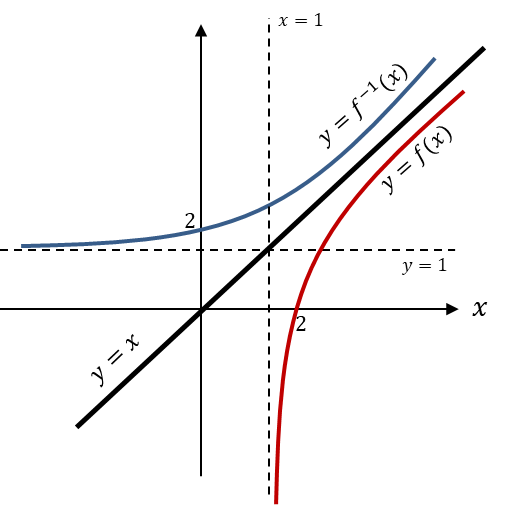
Why must the function be one-to-one for an inverse function to exist?

How do we find an inverse function?

Example Steps

1. If , find
2. If , , determine

Graphing an Inverse Function



The domain of is the range of and vice versa.

Example

If is defined as

1. Find the range of .
2. Calculate
3. Sketch the graphs of both functions.
4. State the domain and range of .

Test your understanding

The function is defined by

,

(a) Find , the inverse function of , stating its domain.

(b) On the same axe sketch the curves with equation and , giving the coordinates of all the points where the curves cross the axes.

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