
Cubic Graph

1. a. Show that $x = 2$ is a solution of the equation $x^3 - x - 6 = 0$.

b. The diagram opposite shows the graph of $y = x^3 - x - 6$.

i Write down the coordinates of point A. _____

ii Use the graph to explain why there is only one solution to the equation. $x^3 - x - 6 = 0$.

2. a. Find the coordinates of point B. _____

b.

i What transformation changes the graph of $y = x^3 - x - 6$ into the graph of $y = x^3 - x$?

ii Sketch the graph of $y = x^3 - x$ on the diagram.

iii What are the solutions of the equation $x^3 - x = 0$?

