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. $x^3 - x - 6 = 0$.

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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 $y = x^3 - x$?

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

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

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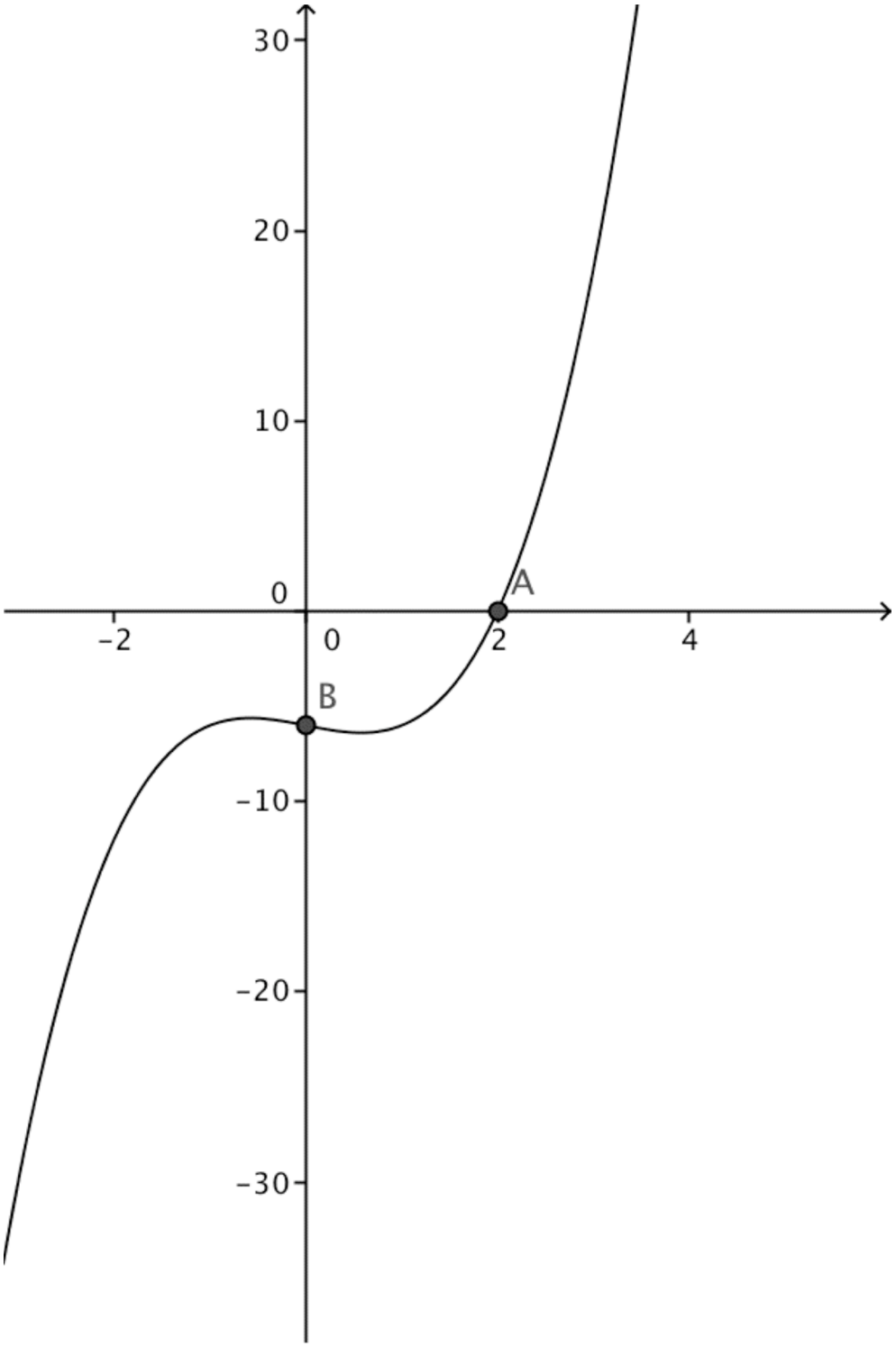

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