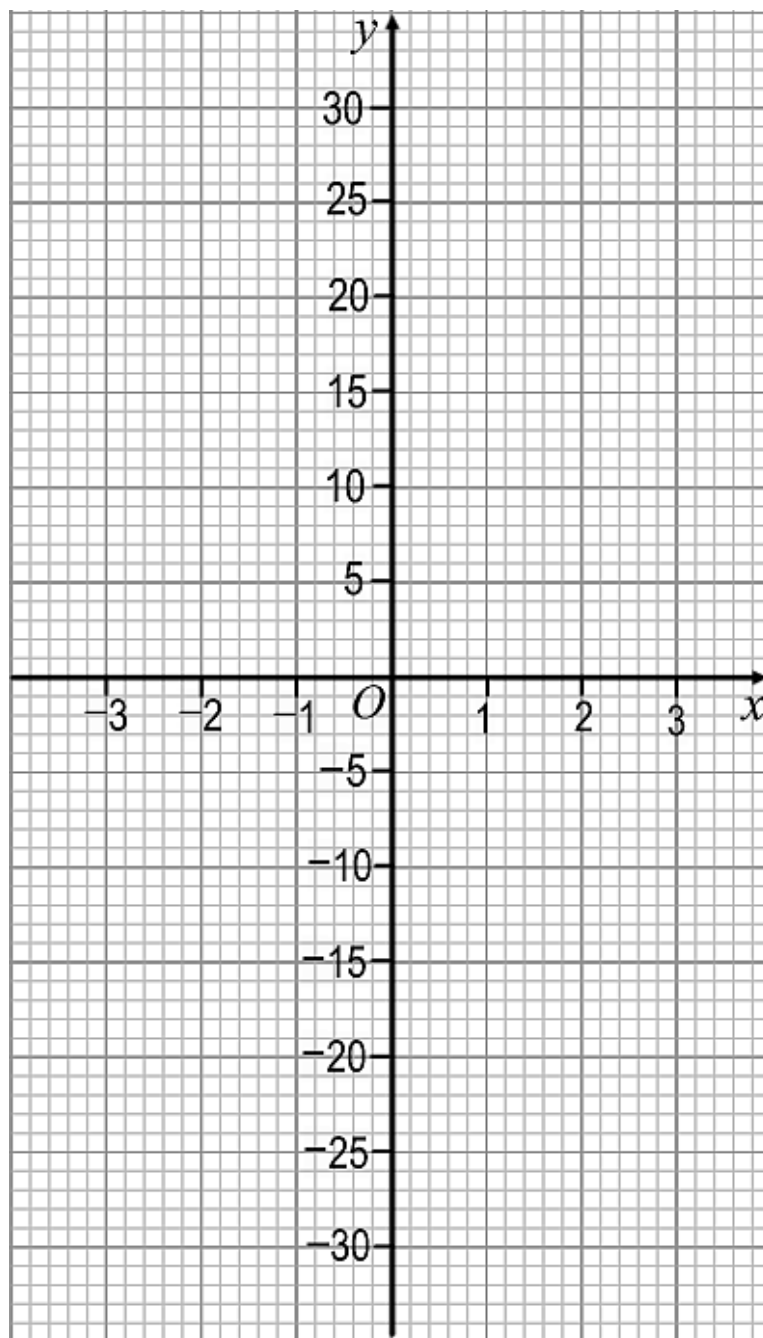


Graphs of cubic functions

- A** 1. Here is a table of values for $y = x^3 + 1$.

x	-3	-2	-1	0	1	2	3
y							

- a) Complete the table of values.
- b) On the grid, draw the graph of $y = x^3 + 1$ for $-3 \leq x \leq 3$.



- c) Use your graph to find the value of y when $x = 1.5$.

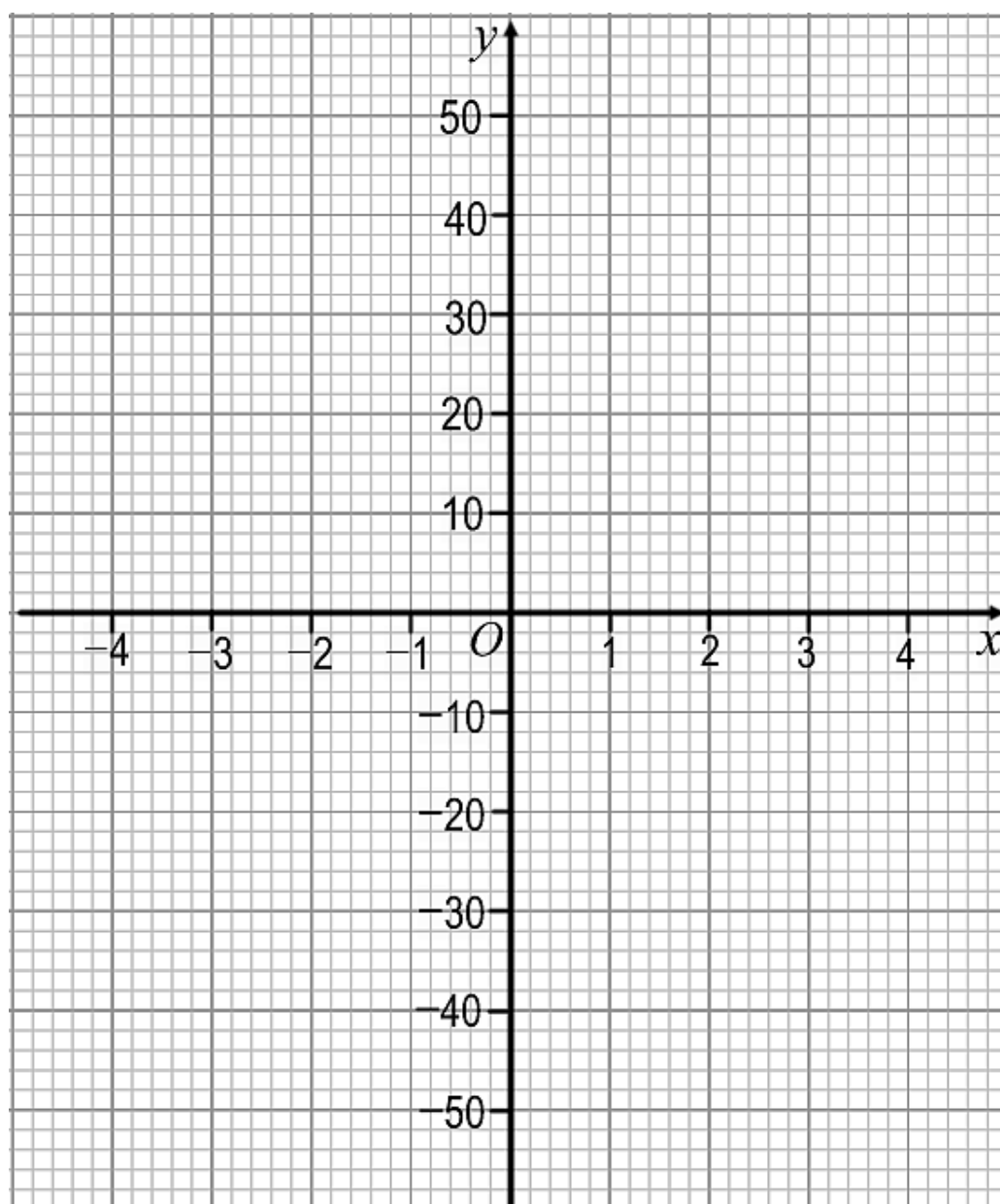
Graphs of cubic functions

A 2. Here is the table of values for $y = x^3 - 5x$.

x	-4	-3	-2	-1	0	1	2	3	4
y		-12			0	-4		12	44

a) Complete the table of values.

b) On the grid, draw the graph of $y = x^3 - 5x$ for $-4 \leq x \leq 4$.



c) Use your graph to find the solutions to the equation $x^3 - 5x = 0$.

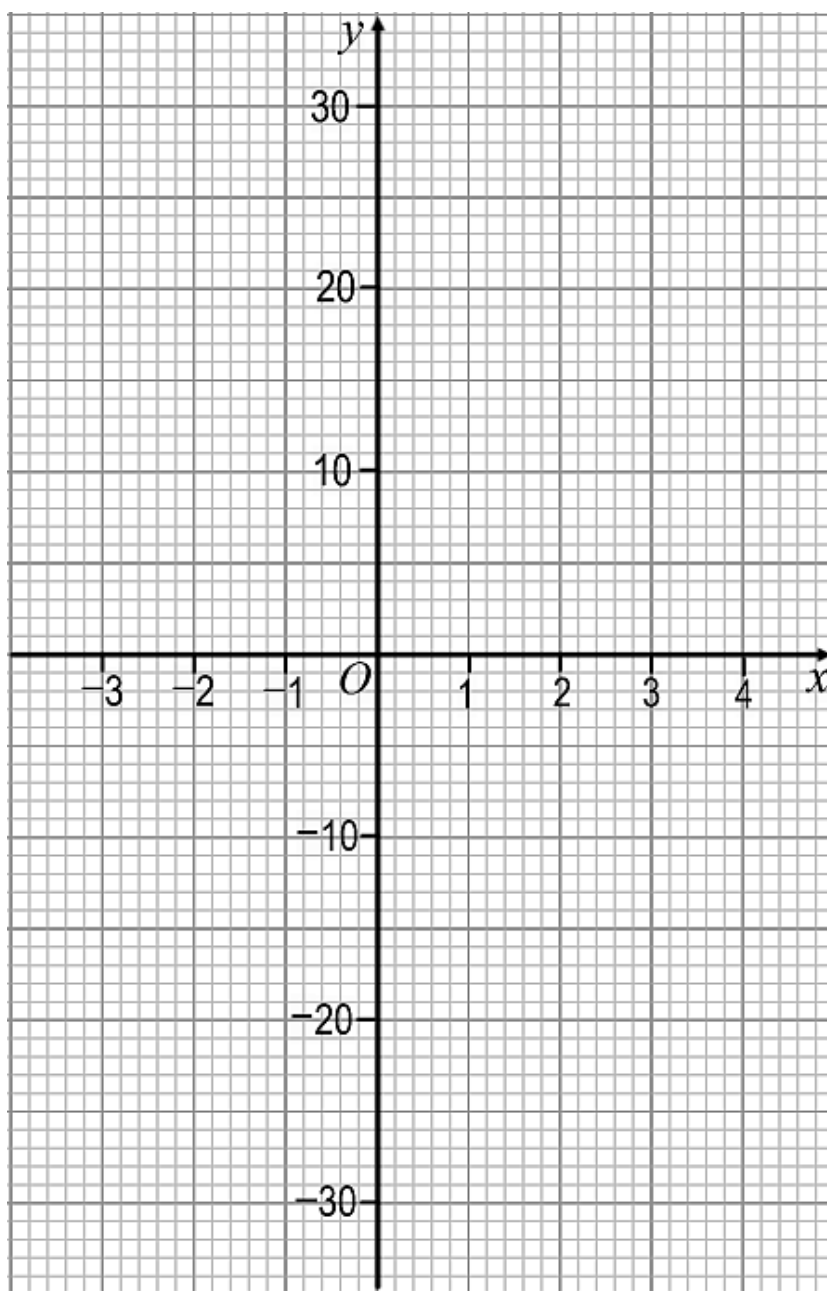
Graphs of cubic functions

A 3. Here is a table of values for $y = 6x + x^2 - x^3$.

x	-3	-2	-1	0	1	2	3	4
y		0	-4			8	0	

a) Complete the table of values.

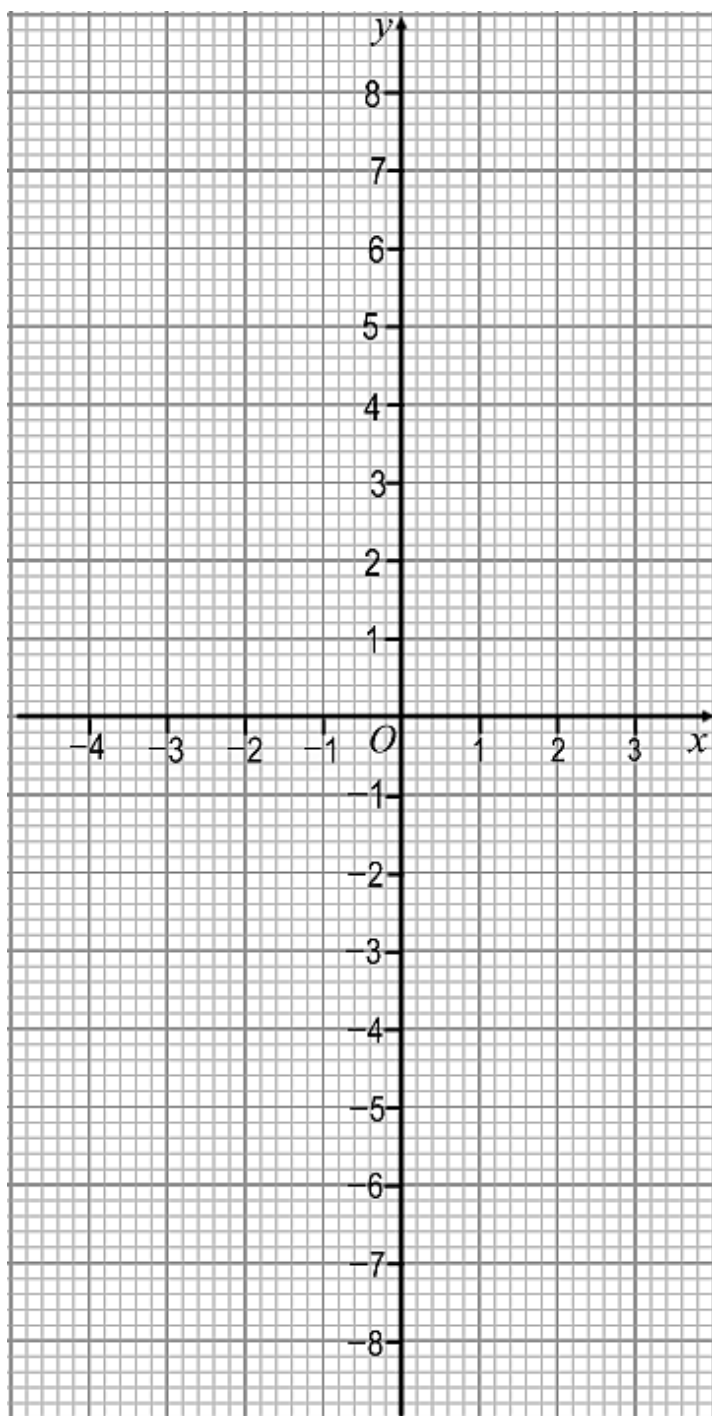
b) On the grid, draw the graph of $y = 6x + x^2 - x^3$ for $-3 \leq x \leq 4$.



c) By drawing a suitable line on your diagram, solve the equation $6x + x^2 - x^3 = x - 2$.

Graphs of cubic functions

- A** 4. a) On the grid, draw the graph of $y = x^3 + x^2 - 4x - 2$ for the values of x from -3 to 2 .



- b) By drawing a suitable line on your diagram, solve the equation $x^3 + x^2 - 5x - 2 = 0$.