

Maths

# Draw Graphs of Simple Cubic Functions Using Tables of Values

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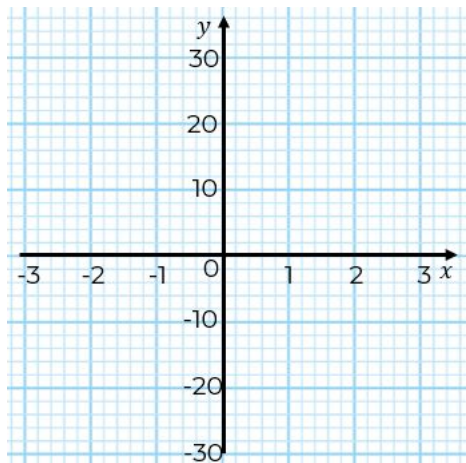


# Draw graphs of simple cubic functions

1.a) Complete the table for  $y = x^3$

	-3	-2	-1	0	1	2	3

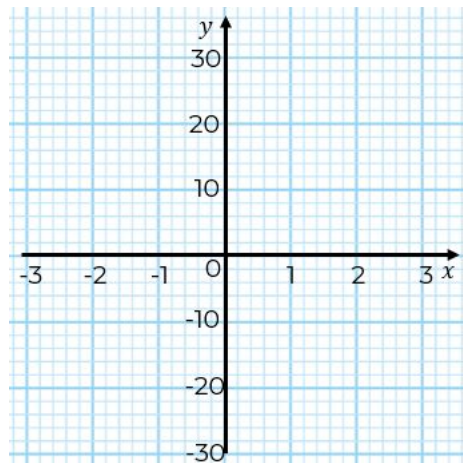
b) Draw the graph of  $y = x^3$  for  $-3 \leq x \leq 3$



2.a) Complete the table for  $y = -x^3$

	-3	-2	-1	0	1	2	3

b) Draw the graph of  $y = -x^3$  for  $-3 \leq x \leq 3$



# Draw graphs of simple cubic functions

3. What is the same and what is different about the two graphs drawn in question one and two?

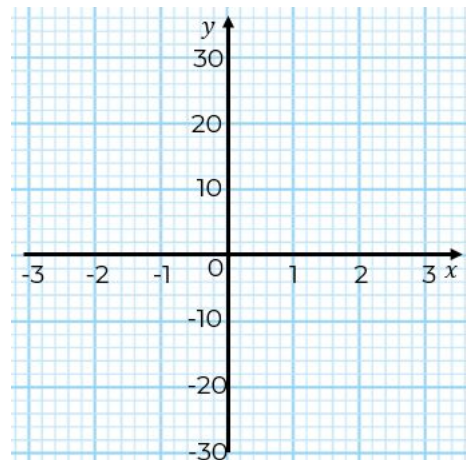
4.a) Complete the table for  $y = x^3 + 2$

	-3	-2	-1	0	1	2	3

b) Complete the table for  $y = x^3 - 2$

	-3	-2	-1	0	1	2	3

5.a) Draw the graphs for  $y = x^3 + 2$  and  $y = x^3 - 2$  on the same axis.



b) What's the same and what's different about the two graphs?

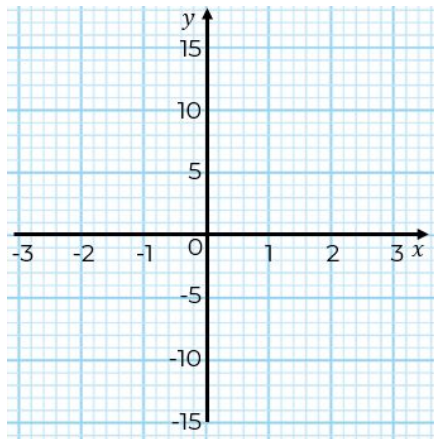


# Draw graphs of simple cubic functions

6.a) Complete the table for  $y = x^3 - 4x$

	-3	-2	-1	0	1	2	3

b) Draw the graph for  $y = x^3$  for  $-3 \leq x \leq 3$



# Answers

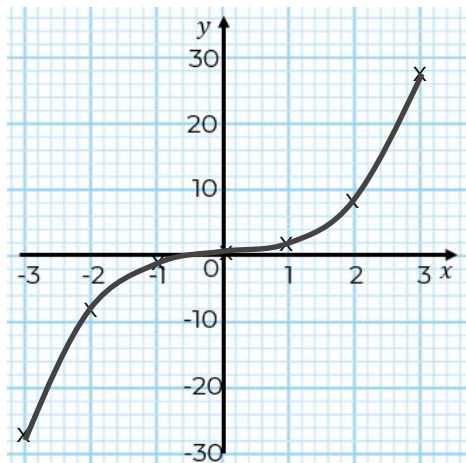


# Draw graphs of simple cubic functions

1.a) Complete the table for  $y = x^3$

	-3	-2	-1	0	1	2	3
	-27	-8	-1	0	1	8	27

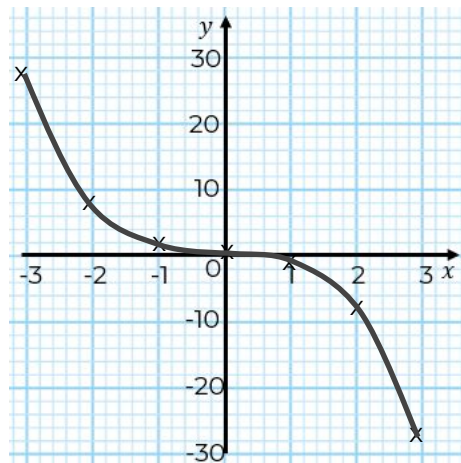
b) Draw the graph of  $y = x^3$  for  $-3 \leq x \leq 3$



2.a) Complete the table for  $y = -x^3$

	-3	-2	-1	0	1	2	3
	27	8	1	0	-1	-8	-27

b) Draw the graph of  $y = -x^3$  for  $-3 \leq x \leq 3$



# Draw graphs of simple cubic functions

3. What is the same and what is different about the two graphs drawn in question one and two?

E.G They both pass through the origin and have the same absolute values. The graph is reflected on the x-axis

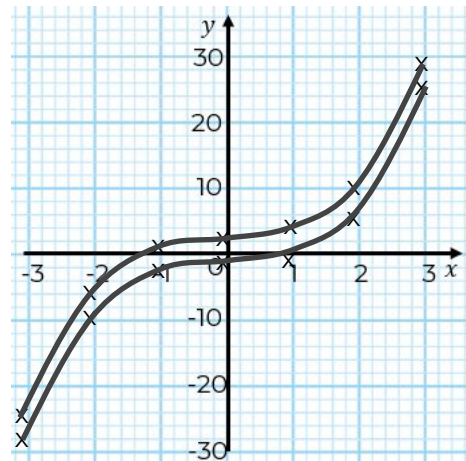
4.a) Complete the table for  $y = x^3 + 2$

	-3	-2	-1	0	1	2	3
	-25	-6	1	2	3	10	29

b) Complete the table for  $y = x^3 - 2$

	-3	-2	-1	0	1	2	3
	-29	-10	-3	-2	-1	6	25

5.a) Draw the graphs for  $y = x^3 + 2$  and  $y = x^3 - 2$  on the same axis.



b) What's the same and what's different about the two graphs?

E.G The curve is the same shape they cross y-axis at different points.



# Draw graphs of simple cubic functions

6.a) Complete the table for  $y = x^3 - 4x$

	-3	-2	-1	0	1	2	3
	-15	0	3	0	-3	0	15

b) Draw the graph for  $y = x^3$  for  $-3 \leq x \leq 3$

