

GCSE – Mathematics only

Topic: Drawing and interpreting graphs (cubic, $\frac{a}{x}$, k^x when x is an integer and k is a positive integer).

Tier: Higher

Grade: A/A*



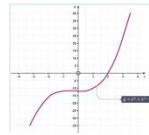
Starter

Complete the table of values below:

x	-3	-2	-1	0	1	2	3
$y = x^3 - x + 8$							

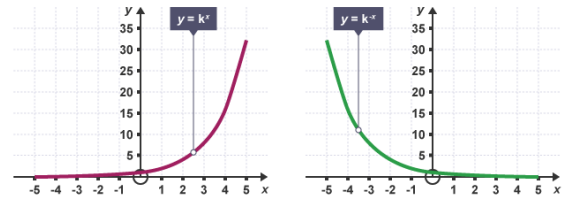
Top Tips!

Cubic graph x^3



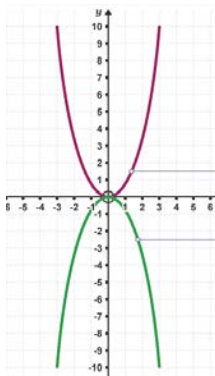
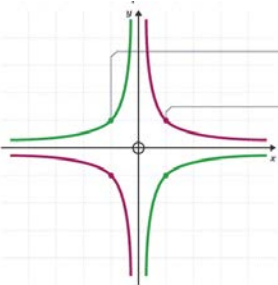
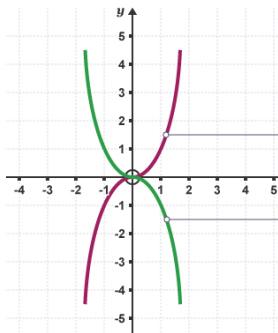
Exponential graphs $y = k^x$

These graphs increase rapidly in the y direction and will never fall below the x axis.



Skills:

Label the following graphs:



Examination Question: 2016 November (new) Mathematics U2 Higher Q15

Circle either TRUE or FALSE for each statement given below. [2]

GRAPH	STATEMENT		
	The equation of this graph could be $y = -x^3 - 2$.	TRUE	FALSE
	The equation of this graph could be $y = x^3 - 9x$.	TRUE	FALSE
	The equation of this graph could be $y = x^{-1}$.	TRUE	FALSE
	The equation of this graph could be $y = x^3 + 4$.	TRUE	FALSE

Assessment for Learning

Video / QR code

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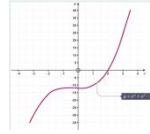
Starter

Complete the table of values below:

x	-3	-2	-1	0	1	2	3
$y = x^3 - x + 8$	-16	2	8	8	8	14	32

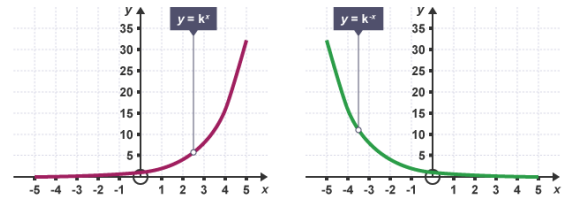
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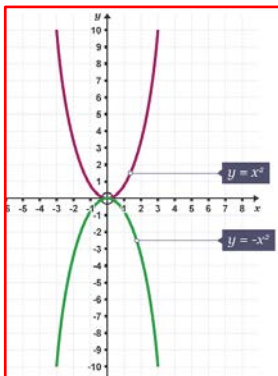
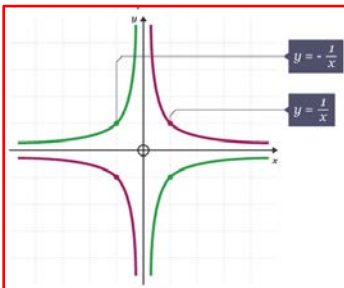
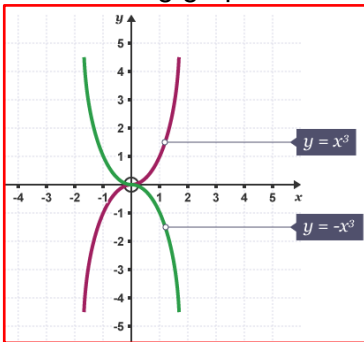
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