

Step Pattern

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Macros
Macros

Standard Form	Zeros Form	Vertex Form
$y = ax^2 + bx + c$	$y = a(x-s)(x-t)$	$y = a(x-h)^2 + k$

Vertex	Zeros	y-int	Vertical Stretch	Horizontal Shift	Vertical Shift	Axis of Symmetry AoS	Max/Min Value
(h, k)	s and t	c	a	h	k	x = h	Max or min value of k

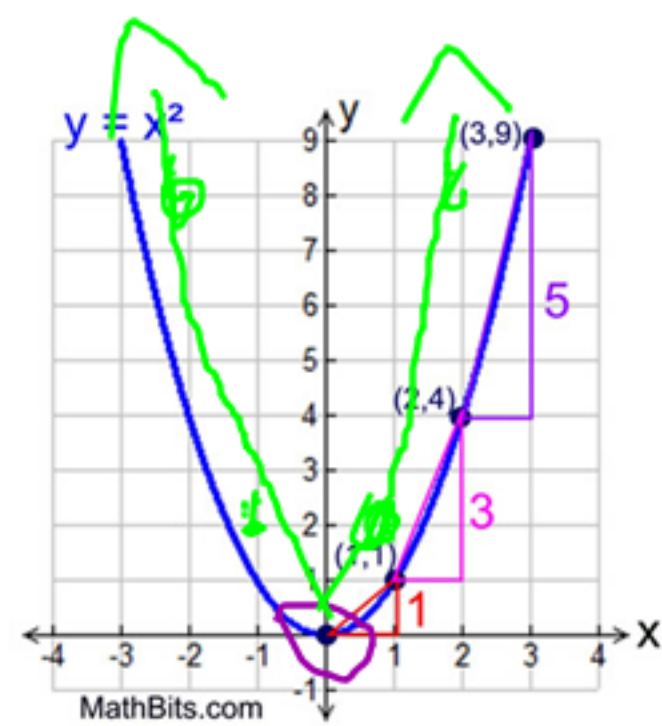
The Step pattern from the vertex for graphing $y = x^2$ is

Over 1 - up 1
 Over 1 - up 3
 Over 1 - up 5

The Step pattern for graphing $y = 2x^2$ is

Over 1 - up $1 \times 2 = 2$
 Over 1 - up $3 \times 2 = 6$
 Over 1 - up $5 \times 2 = 10$

Make tables of values for $y = \frac{1}{2}x^2$ and $y = -2x^2$. Then, make a sketch of the graphs.





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Macros

Macros

The Step pattern for graphing $y = 2x^2$. Is

Over 1 - up _____

Over 1 - up _____

Over 1 - up _____

$$y = \frac{1}{2}x^2$$

Over 1, up $1 \times \frac{1}{2} = 0.5$

over 1, up $3 \times \frac{1}{2} = 1.5$

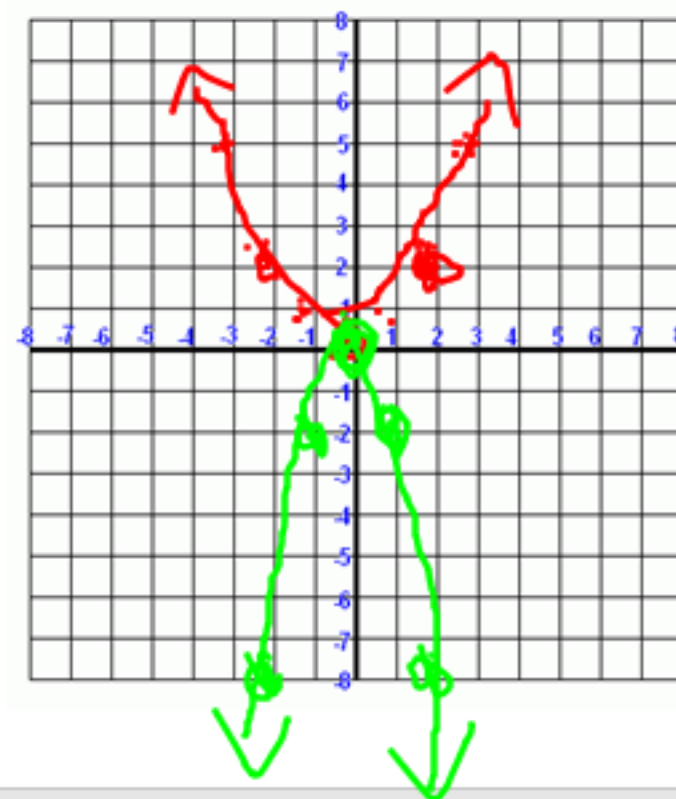
over 1, up $5 \times \frac{1}{2} = 2.5$

$$y = -2x^2$$

over 1, down $1 \times 2 = 2$

over 1, down $3 \times 2 = 6$

Make tables of values for $y = \frac{1}{2}x^2$ and $y = -2x^2$. Then, make a sketch of the graphs.



Course: Grade 10 Mathematics

