

Sketch the graph of  $y = \left(\frac{-1}{2}\right)^2 2^{\frac{1}{2}(x+3)}$  (-1 pt)

$$a = -\frac{1}{2}$$

$$k = \frac{1}{2}$$

$$c = 3$$

$$d = -1$$

Step 1) Create a table of values for the base function,  $y = 2^x$ . Because this shows exponential growth, choose more positive x-values.

x	y
-1	0.5
0	1
1	2
2	4
3	8

Step 2) Create a table of values for  $y = \left(\frac{-1}{2}\right)^2 2^{\frac{1}{2}x}$ . Multiply all x-values in the previous graph by 2, and multiply all y-values by  $-\frac{1}{2}$ .

x	y
-2	-0.25
0	-0.5
2	-1
4	-2
6	-4