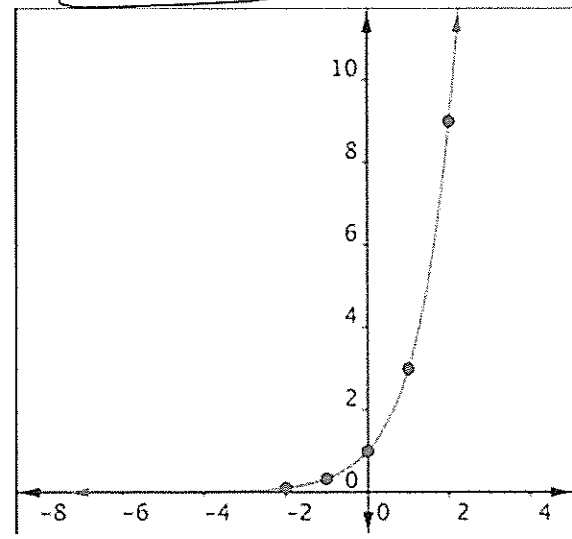


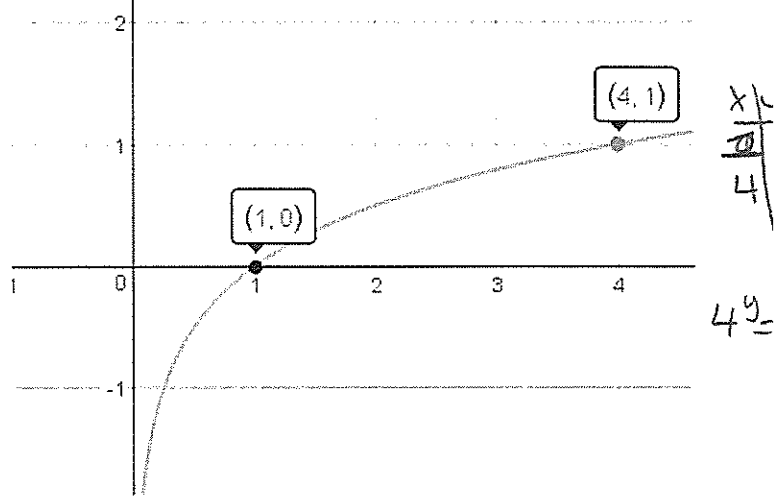
$$f(x) = 3^x$$

x	y
0	1
1	3
2	9



Exponential Growth
 HA: $y = 0$
 y-int: $(0, 1)$

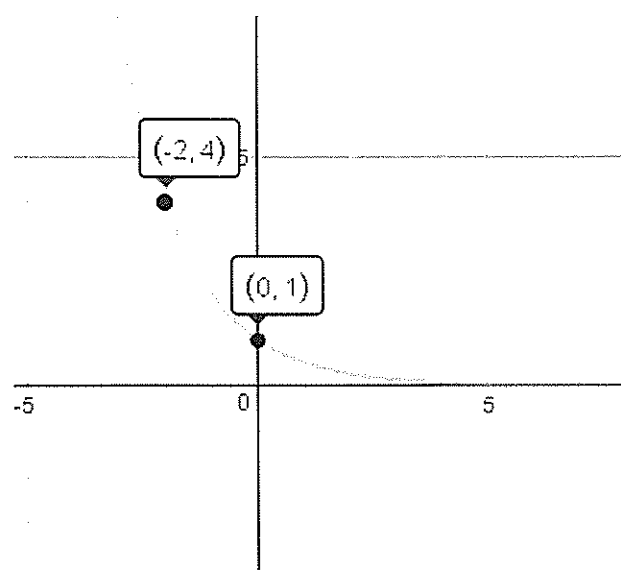
$$f(x) = \log_4 x$$



x	y
1	0
4	1

$4^y = x$

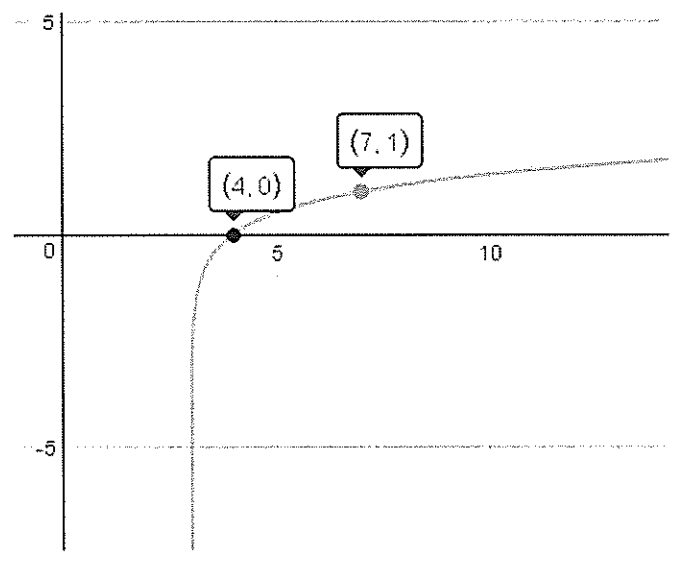
Increasing Logarithmic
 VA: $x = 0$
 X-int: $(1, 0)$



Exponential Decay
 HA: $y = 0$
 y-int: $(0, 1)$

x	y
-2	4
-1	2
0	1

$$f(x) = \left(\frac{1}{2}\right)^x$$



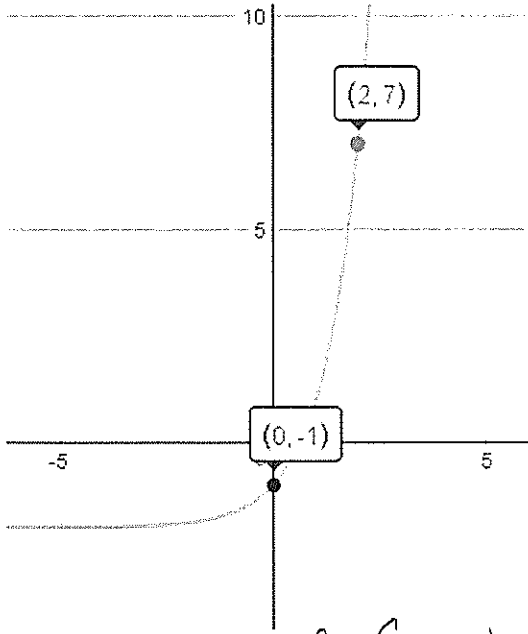
Increasing Logarithmic
 VA: $x = 3$
 X-int: $(4, 0)$

x	y
4	0
7	1

$$4^y = x - 3$$

$$f(x) = 3^x - 2$$

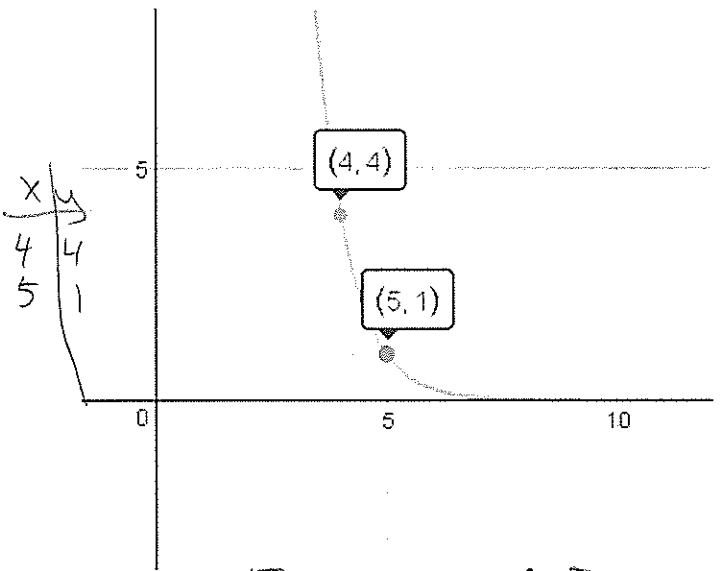
x	y
0	-1
2	7



Exponential Growth
 HA: $y = -2$
 y int (0, -1)

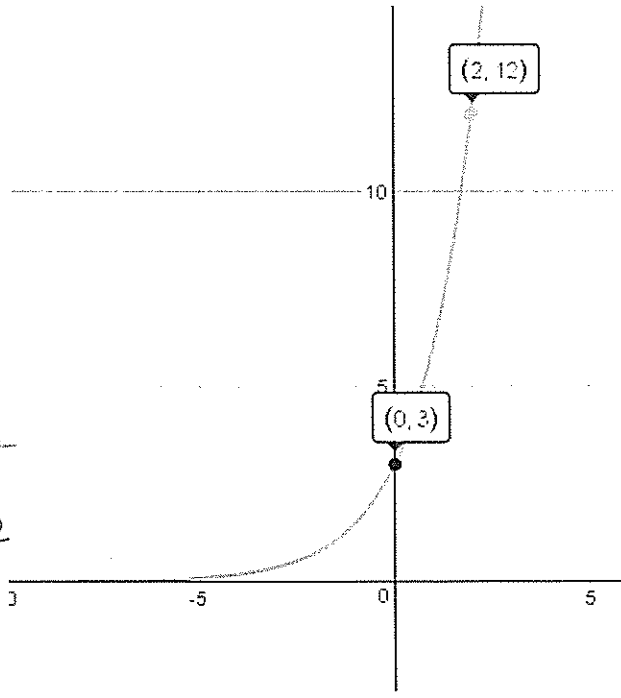
$$f(x) = \frac{1}{4}x - 5$$

x	y
4	4
5	1

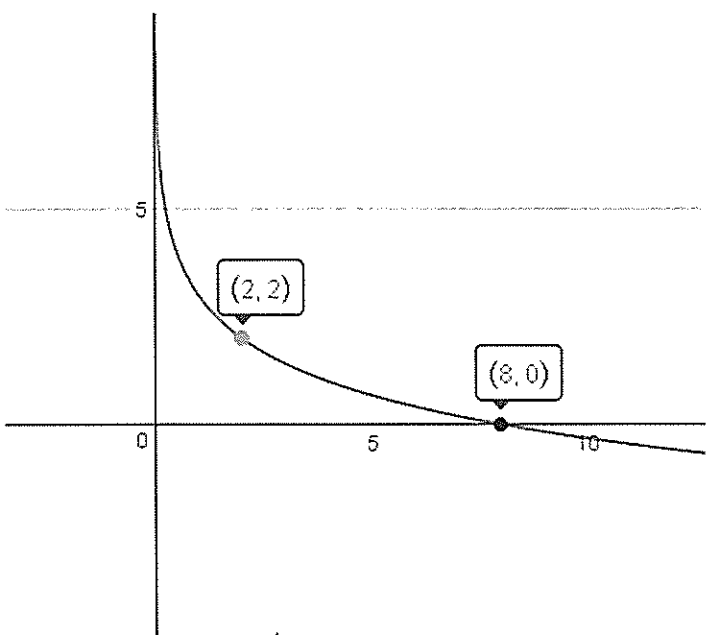


Exponential Decay
 HA: $y = 0$
 y int (0, 4^5)

x	y
0	3
2	12



Exponential Growth
 HA: $y = 0$
 $y = 3 \cdot 2^x$



Decreasing
 Logarithmic
 VA: $x = 0$

x	y
2	2
8	0

$$y = \log_{\frac{1}{2}} x + 3$$

$$\left(\frac{1}{2}\right)^{y-3} = 1$$