

ESQ 5

Graph: $f(x) = -2\log_4(x-3) + 1$

x	$f(x)$	$4^x = 1$	$4^x = 4$
4	$-2 \cdot \log_4(1) + 1 = -2(0) + 1 = 1$		
7	$-2 \cdot \log_4(4) + 1 = -2(1) + 1 = -1$		

Asymptote: $x=3$ $x=h$

Domain: $(3, \infty)$ or $x > 3$

Solve: $f(x) = -1$ $x=7$

$$f(19) = -2 \cdot \log_4(16) + 1$$

$$4^x = 16$$

$$\frac{-2(2) + 1}{-4 + 1} = \textcircled{-3}$$

$$\begin{array}{r} x-3=1 \\ +3 \quad +3 \\ \hline x=4 \end{array}$$

$$\begin{array}{r} x-3=4 \\ +3 \quad +3 \\ \hline x=7 \end{array}$$

