

Practice

$$\begin{array}{r} x-1=1 \\ +1 \quad +1 \\ \hline x=2 \end{array}$$

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

$$(h, k) = (1, 6)$$

$$f(x) = -\log_3(x-1) + 6$$

x	$f(x)$
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2	$-\log_3(2-1) + 6 = -1(0) + 6 = 6$ $0 + 6$
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4	$-\log_3(4-1) + 6 = -1(1) + 6 = 5$ $-1 + 6$
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Asymptote: $x=1$

Domain: $(1, \infty)$ or $x > 1$

Solve: $f(x) = 6$ $x=2$

$$\begin{aligned} f(28) &= -\log_3(28-1) + 6 \\ &= -1(3) + 6 \\ &= -3 + 6 = 3 \end{aligned}$$

