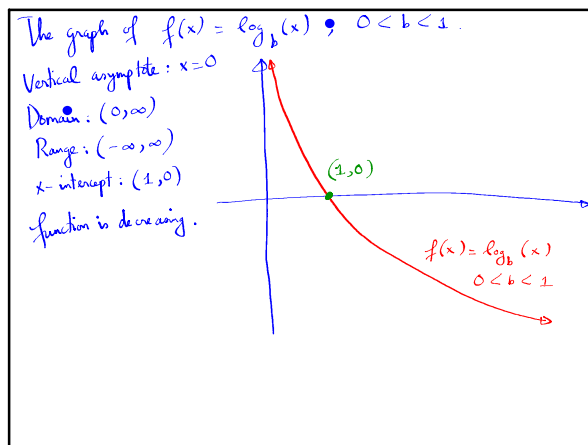




Nov 15-10:38 AM

Review:

Find a formula for the exponential function $f(x) = a(b)^x$ whose graph passes through $(-1, \frac{9}{2})$ and $(3, 72)$.

When $x = -1$; $f(x) = \frac{9}{2}$; $a(b)^{-1} = \frac{9}{2}$

When $x = 3$; $f(x) = 72$; $a(b)^3 = 72$

$\frac{a}{b} = \frac{9}{2}$; $a \cdot b^3 = 72$

$a = \frac{9}{2}b$; $\frac{9}{2}b \cdot b^3 = 72$

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$\frac{9}{2}b^4 = 72$; $b^4 = 16$; $b = 2$; $a = \frac{9}{2} \cdot 2 = 9$

$f(x) = 9(2)^x$

$f(-3) = 9 \cdot 2^{-3} = \frac{9}{8}$

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