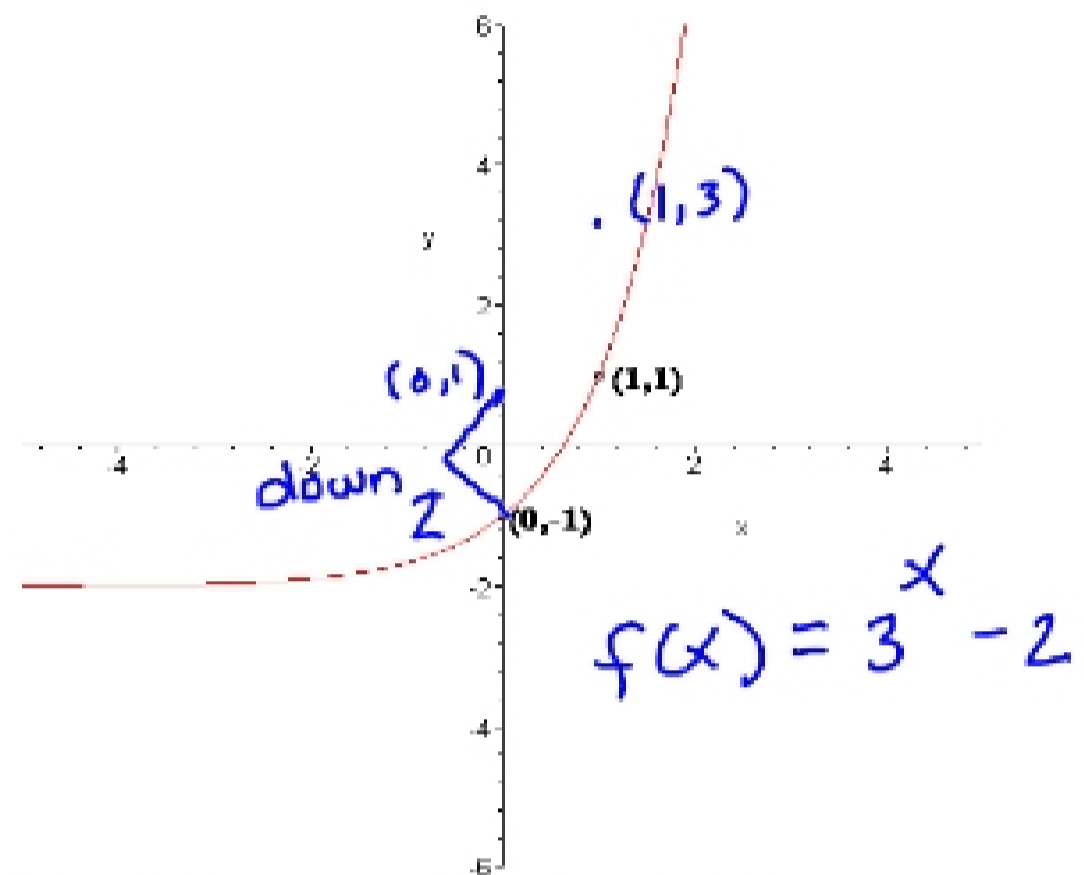


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1. Given the following: What is the exponential function?



- A. $f(x) = 3^{2x}$ **B.** $f(x) = 3^x - 2$ C. $f(x) = 3^{x-2}$ D. $f(x) = 3^x$

Use for questions 2 and 3: $f(x) = -4^x + 3$.

2. Find the asymptote for this function.

- A. $x = -3$ **B.** $y = 3$ C. $y = -4$ D. $x = 3$



3. Find the range.

- A. $(3, \infty)$ B. $(-\infty, -3)$ C. $(0, \infty)$ **D.** $(-\infty, 3)$

Use for questions 4 and 5: $f(x) = \log_3(x+2) - 1$

4. Find the domain.

- A. $[2, \infty)$ B. $(\infty, -1]$ **C.** $(2, \infty)$ D. $(-1, \infty)$

$$x + 2 > 0$$

$$x > -2$$

5. Find the asymptote for this function.

- A. $x = 2$ B. $y = -1$ C. $y = -2$ **D.** $x = -2$

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6. Solve for x : $4^x = 5$ $x = \log_4 5$
- A. $2\log_2 5$ **B.** $\log_4 5$ C. $\log_5 4$ D. no solution

7. Solve $\ln(x) = 2$. $x = e^2$
- A. e^{-2} B. 4 **C.** e^2 D. -2