

King Fahd University of Petroleum and Minerals
Prep-Year Program
Math 002 Quiz 1B

Name: _____ ID#: _____ Sec#: _____

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

(a) Graph $f(x)$

(b) Find the Domain and the Range of $f(x)$.

(c) Find the Asymptote of $f(x)$.

(d) Find the x- and y-intercept of $f(x)$.

2. Find the Domain of the function $f(x) = \log_{x+2}(1-x)$.

3. Write the equation $1 + \log_{\frac{1}{2}} 9 = x$ in its exponential form.

4. Let $f(x) = \log_b x$ such that $f(2) = 3$, Find the value of

(a) $f(4)$

(b) $f^{-1}(1)$

5. Given $f(x) = |\log |x||$

(a) Graph $f(x)$.

(b) Find the Domain and the Range of $f(x)$.