

Quiz4

September 28, 2007

Name: _____

Note: Each problem is worth 25 points, so the maximum grade you can get is 100 points. *Good Luck!!*

(1) It is given that M varies jointly as x and y . If $x = 15$, $y = \frac{1}{3}$, then $M = 7$. Find the constant of proportionality.

(2) Find the difference quotient $\frac{f(a+h)-f(a)}{h}$, $h \neq 0$, for $f(x) = x^2 - 3x$.

(3) Determine the domain of the function $g(x) = \frac{\sqrt{3-x}}{x^2-4}$.

(4) Find the maximum or minimum value of the quadratic function $h(x) = 2x^2 - x + 1$. State whether the value is a maximum or minimum.