

Provide a clear and organized presentation. Determine the absolute extrema for f over the closed region bounded by the triangular region whose vertices are $(-2,0)$, $(0,-2)$, and $(0,2)$ if $f(x,y) = \frac{1}{2}x^2 - xy + \frac{2}{3}y^3 + x - y + 1$. This quiz is Harry Potter-free enforced.