

5. Find the relative maxes and mins of the function $f(x, y) = x^2 + 4y^2 + 4$, using the techniques of Calculus.

6. Convert to Cylindrical Coordinates and Integrate: $\int_{-4}^4 \int_{-\sqrt{16-x^2}}^{\sqrt{16-x^2}} \int_0^{4+\sqrt{16-x^2-y^2}} 1 dz dy dx$