

Name:
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MAC 2313.9728
Cyr

Quiz 9

You must show all work to receive full credit!!

Problem 1. (5 points) Use Lagrange multipliers to find the maximum and minimum value of $f(x, y, z) = 2x + 2y + z$ subject to the constraint $x^2 + y^2 + z^2 = 9$.

Problem 2. (5 points) Evaluate by reversing the order of integration:

$$\int_0^2 \int_{y/2}^1 y \cos(x^3 - 1) dx dy$$