

Quiz 1

NAME: _____

Question 1

Evaluate the double integral $\iint_D (4x-1) dA$, where D is the triangular region with vertices $(0, 0)$, $(2, 2)$, $(0, 3)$.

Question 2

Using polar coordinates, write an iterated integral that will compute the volume of the region enclosed by the surface $4x^2 + 4y^2 + z^2 = 20$ and the plane $z = 2$.

DO NOT EVALUATE THE INTEGRAL! Just set it up completely, with limits and the integrand in polar coordinates ready to be evaluated!