MTH241 Fall 2024: Quiz 07

Name:

UID:

Closed book, no calculator, show your work clearly.

You don't need to evaluate the integrals.

1. (`5pt`) Let R be the region in the first quadrant bounded by the curve $y = 9 - x^2$. Draw a picture of R and set up an iterated integral in Cartesian coordinates for $\iint_R x dA$ with R as horizontally simple. (Grading: 2pt working; 1pt for drawing; 2pt for integral)

2. (`5pt`) Let R be the region in the second quadrant bounded by the curve $y = x + 3$, and x and y axes. Draw a picture of R and set up an iterated integral for $\iint_R x^2 + y^2 dA$ with R as polar. (Grading: 2pt working; 1pt for drawing; 2pt for integral)

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