

Show all work clearly and in order (on this sheet or an attached sheet) and circle your final answers.

Justify your answers algebraically whenever possible. Work without justification may not receive credit.

You have 25 minutes to take this 10 point quiz.

1. (5 points) Find the area between the line $y = 4x + 1$ and the parabola $y = x^2 - 2$.

2. (5 points) Let R be the region bounded by the line $y = 1$ and the upper semicircle of radius 1 centered at $(1, 1)$. **Set up but do not evaluate** an integral that will compute the volume of the solid of revolution obtained by rotating R about the x -axis.