

QUIZ 2 - MATH 152

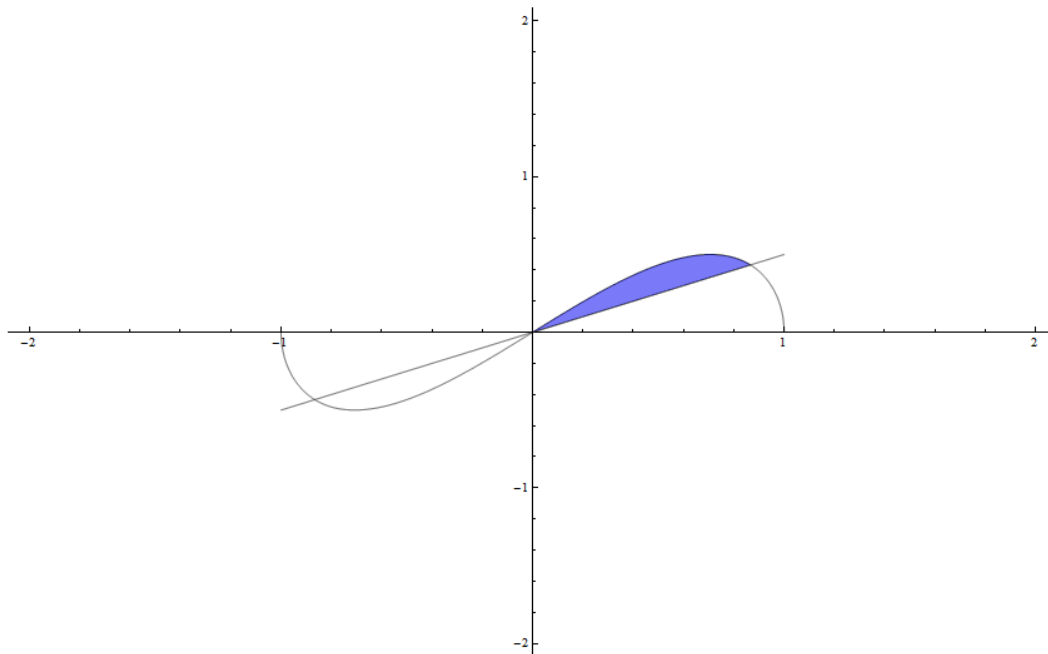
Friday, September 9

YOUR NAME: _____

George Voutsadakis

Read each problem **very carefully** before starting to solve it. Each problem is worth 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. Find the area of the region in the first quadrant enclosed by the graphs of $f(x) = \frac{1}{2}x$ and $g(x) = x\sqrt{1-x^2}$.



2. Find the volume of the solid with base the region enclosed by $y = x^2$ and $y = 3$ and whose cross-sections perpendicular to the y -axis are isosceles triangles of height equal to the length of their base. (**Hint:** Draw a figure!)