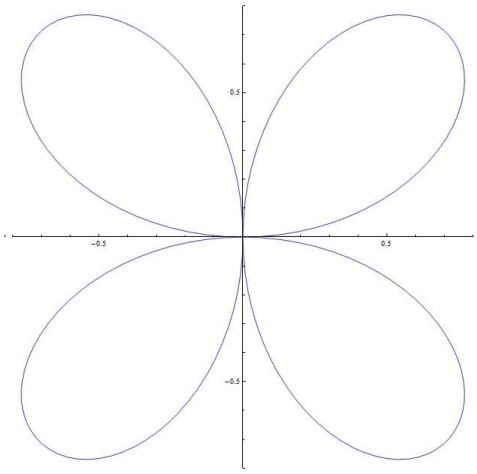
QUIZ 2 - MATH 251 Friday, September 7

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 slope of the tangent line to the graph of the four-petal rose $r = \sin(2\theta)$ at the point $\theta = \frac{\pi}{6}$.



2. Compute the area of the shaded region, where the two graphs shown are those of $r = \frac{1}{2}$ and $r = \cos(3\theta)$.