QUIZ 10 - MATH 251 Friday, April 27

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. Use triple integrals to find the volume of the solid in $\mathbb{R}^3$ bounded by $y = x^2$, $x = y^2$, $z = x + y + 5$ and $z = 0$.

2. Integrate the function $f(x, y, z) = z$ over the region $\mathcal{W}$ bounded by $z = 7 - x^2 - y^2$ and $z = 3$.