Quiz 1

不可使用手機、計算器，禁止作弊!

1. (30%) Set up, but do not evaluate, an integral to find the volume of the solid found by rotating the region bounded by $x = y^2$ and $x = 4$ about the line $x = 4$.

2. (40%) Set up, but do not evaluate, an integral to find the volume of the solid found by rotating the region bounded by $y = x^2$ and $y = 8-x^2$ about the line $y = 10$.

3. (30%) Set up, but do not evaluate, an integral to find the volume of the solid whose base is the region bounded by the parabola $y = 16-x^2$ and the x-axis, and whose cross-sections perpendicular to the x-axis are semicircles.