RIDDLE **NAME**_____

AP CALCULUS

SECTIONS 6-1 AND 6-2: Area and Volume

Answer each of the following showing all work.

1. Find the area of the region bounded by the graphs $f(x) = 2 - x^2$ and $g(x) = x$.

2. Determine the area of the region to the right of the curve $x = y^2$ and to the left of $y = x - 2$.

3. Find the volume of the solid generated by revolving about the x-axis the region bounded by $y^2 = 4x$, the x-axis, $x = 0$, and $x = 4$.

4. Find the volume of the solid generated by revolving about the y-axis the region bounded by $y = \sqrt{x}$, $x = 0$ and $y = 2$.

5. Find the volume of the solid generated by revolving the region bounded by $x = y^2$ and $x = 4$ about the line $x = 6$.