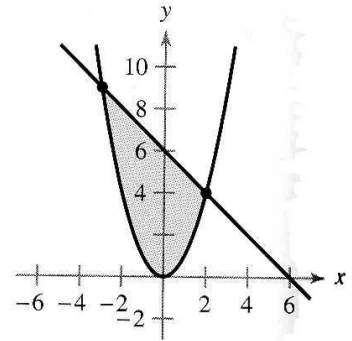


You may use a calculator and your homework, but not your books or notes. There are two problems worth 10 points each. **Show all work to receive full/partial credit.**

1) Find the area of the region by integrating

a) With respect to x .

$$y = x^2 \quad y = 6 - x$$



b) With respect to y .

2) Find the volume of the solid generated by revolving the region bounded by the graphs of the equations about the line $y=4$.

$$y = \frac{1}{2}x^3, y = 4, x = 0$$