

Name _____

Sr.# _____

Q1 Evaluate

$$a) \int_0^2 \int_0^1 \frac{xy^3}{x^2 + 1} dx dy$$

$$b) \int_{-1}^0 \int_{-\sqrt{1-x^2}}^0 \frac{2}{1+\sqrt{x^2+y^2}} dy dx$$

Q3 Find the volume of the solid whose base is the region in the xy -plane that bounded by $y = 4 - x^2$ and $y = 3x$, while the top of the solid is bounded by the plane $z = x + 4$.