Q1. Find  $\int \frac{x^2}{\sqrt{1-x^3}} dx$ 

Q2. Consider a region in the first quadrant that is bounded above by  $y=\sqrt{x}$  and below by the x-axis and the line y=x-2. Set up two integrals (one with respect to x and other with respect to y) which determine the area of the above region.