

$$\int_1^2 \int_0^{\sqrt{2x-x^2}} \frac{1}{(x^2+y^2)^2} dy dx$$

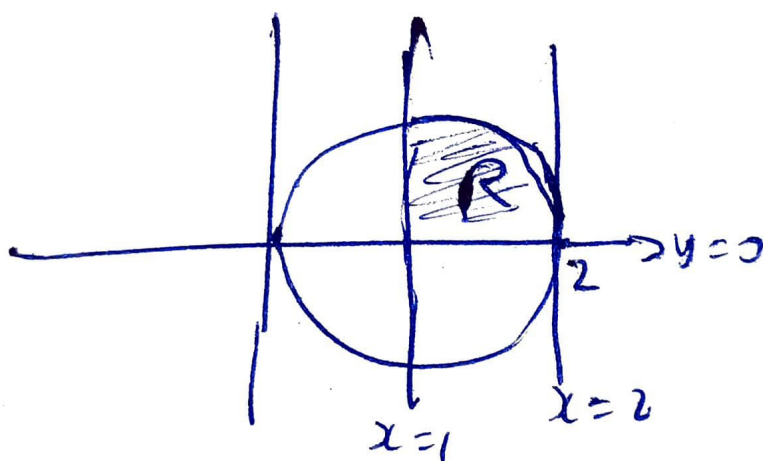
$$y = \sqrt{2x-x^2} \quad x=1$$

$$x=2$$

$$y=0$$

$$x^2+y^2=2x \Rightarrow$$

$$(x-1)^2 + y^2 = 1$$



$$\Rightarrow \int_{\theta=0}^{\frac{\pi}{2}} \int_{r=1}^{2\cos\theta} \frac{1}{r^4} \times r dr d\theta$$

Simple calculation