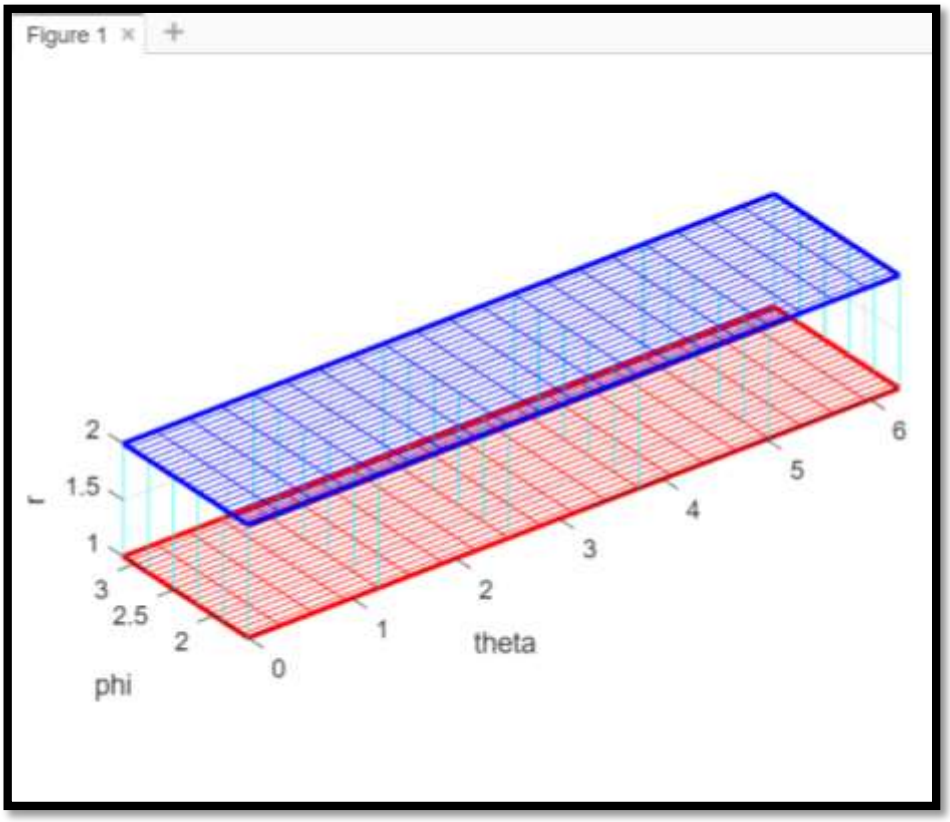
ASSIGNMENT 5

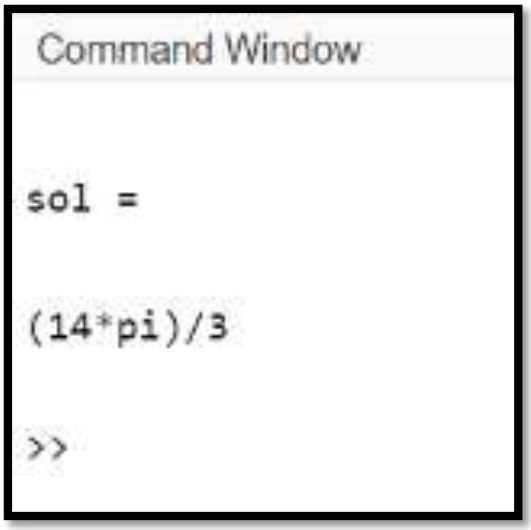
VIDHI SHAH 21BCE1297

Q: Sketch the solid whose volume is given by the integral and evaluate the integral $\int_0^{2\pi} \int_{\pi/2}^{\pi} \int_1^2 \rho^2 \sin(\varphi)\, d\rho d\varphi d\theta$

Assignment5.m

```
clc
clear
syms r phi theta
sol = int(int(int(r^2*sin(phi),r,1,2),phi,pi/2,pi),theta,0,2*pi)
viewSolid(r,1+0*phi*theta,2,phi,pi/2+0*theta,pi,theta,0,2*pi);
axis equal; grid on;
```




Command Window
sol =
(14*pi)/3
>>