Assignment-1

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(6)(C). Given ,
Radius of the cylinder(R)=3 cm
Height of the cylinder(H)= 7 cm
Height of the cone removed(h)=3 cm
Volume of cylinder(V_1) =π R^2H
$Volume\ \ of\ \ hemisphere(V_2) = \frac{2}{3}\pi$ R^3
$Volume\ \ of\ \ Cone(V_3) = \frac{1}{3}\pi$ R^2h
$According\ \ to\ \ question\ \ Hemisphere, Cone\ \ are\ \ removed\ \ from\ \ Cylinder$
$Therefore,\ \ remaining\ \ volume = V_1 - V_2 - V_3$
=π R^2 $H - \frac{2}{3}\pi$ $R^3 - \frac{1}{3}\pi$ R^2h
$Substituting\ \ given\ \ values\ \ we\ \ get$
$= 113.142cm^3$