

CALCULUS 3 - FALL 2017 - HOMEWORK 10

1-3) Find the volume of the region above the  $xy$  plane, below the paraboloid  $z = x^2 + y^2$ , and inside the cylinder  $x^2 + y^2 = 4$

4-6) Find the moment of inertia of a solid sphere of radius  $R$  about a diameter. Assume constant mass density  $\beta$ .