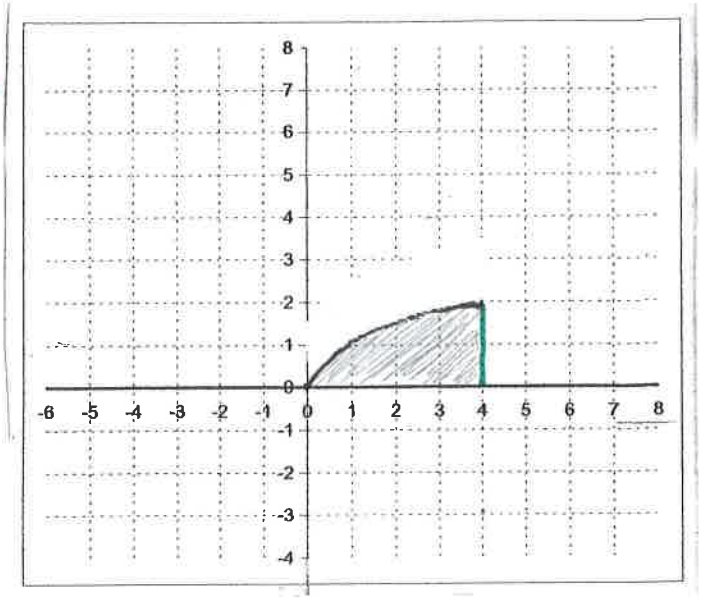
IB Calculus : Volumes of Revolution worksheet Name: _____

The graph shows the area bounded by $f(x) = \sqrt{x}$, x-axis, and x = 4.



Set up the integrals for the volume that Would be generated by revolving this Curve segments around the following Axes of rotation;

a. x-axis

b. y= -1

c. y= 4

d. y-axis

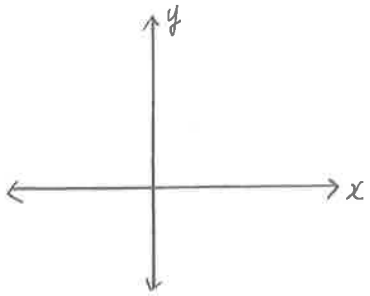
e. x= -2

d. x= 4

IB Calculus Exit Slip **Name:** _____

The region M is enclosed by the function $y = x^2$ and $y = 3x$.

a. Sketch the solid generated by revolving M about the x-axis and set up the integral of the volume.

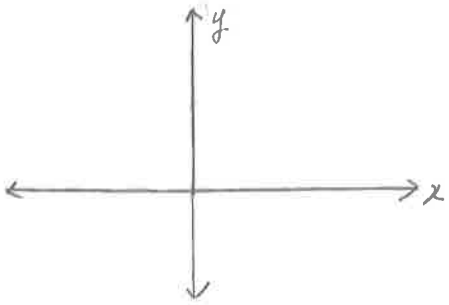


R_{outer} =

r_{inner} =

V =

b. Sketch the solid generated by revolving M about the y-axis and set up the integral of the volume.

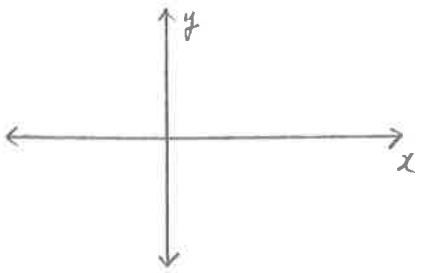


R_{outer} =

r_{inner} =

V =

c. Sketch the solid generated by revolving M about y= -1 and set up the integral of the volume.

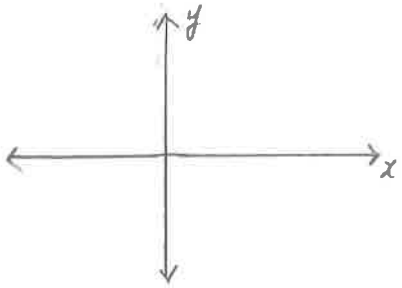


R_{outer} =

r_{inner} =

V =

d. Sketch the solid generated by revolving M about x = -1 and set up the integral of the volume.

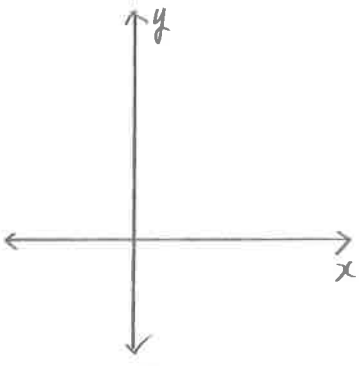


R_{outer} =

r_{inner} =

V =

e. Sketch the solid generated by revolving M about y= 10 and set up the integral of the volume.

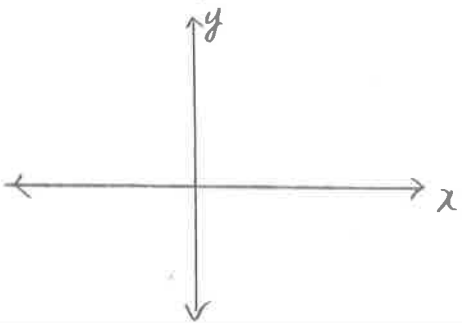


R_{outer} =

r_{inner} =

V =

f. Sketch the solid generated by revolving M about x = 6 and set up the integral of the volume.



R_{outer} =

r_{inner} =

V =