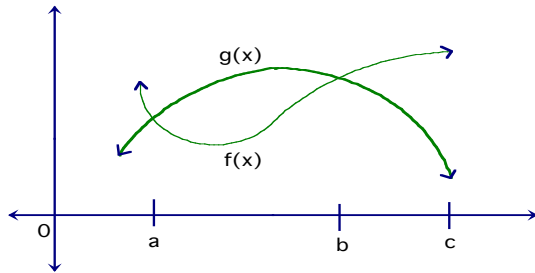


HW 7.3 Volumes Rotated about y-axis Name _____

1) Set up an equation that would find volume of enclosed region rotated about y-axis.



Find each volume of enclosed region rotated about the y-axis. (Show work)

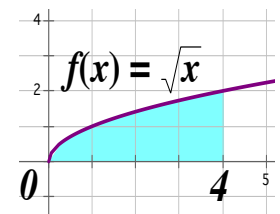
2) $f(x) = x^3$, $g(x) = 0$ from $[0, 2]$

3) $f(x) = \sqrt{9-x^2}$, $g(x) = 0$ from $[0, 3]$

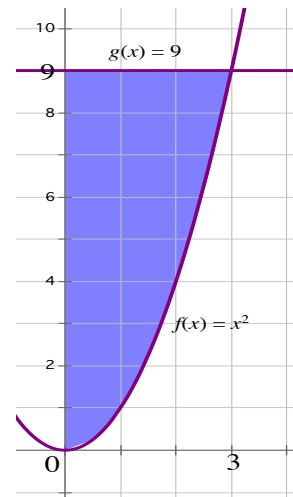
4) Find each volume of enclosed region rotated about the y-axis. (Set up and use calculator)

$$y = \frac{1}{\sqrt{x+1}}, \quad y = 0, \quad x = 0, \quad x = 10$$

5) Find Volume of enclosed region between the graph of $f(x) = \sqrt{x}$ and x -axis from $[0, 4]$ rotated about y -axis. (Set up and use calculator)

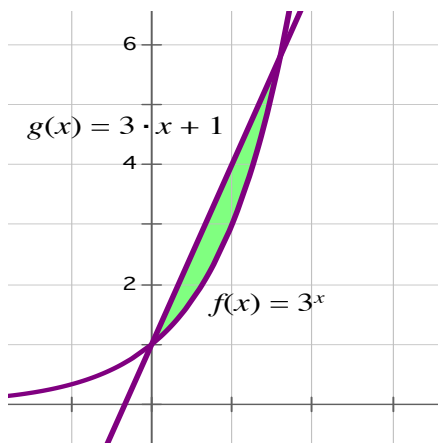


- 6) Find Volume of enclosed region between the graph of $f(x) = x^2$, $y = 9$ and y -axis from $[0, 3]$ rotated about y -axis. (Set up and use calculator)



Find the volume of each enclosed region rotated about the y -axis (Set up and use calculator)

- 7) $f(x) = 3^x$ $g(x) = 3x + 1$



- 8) $y = \frac{1}{4}x + 1$ $g(x) = (x - 2)^2$

