Worksheet
Volumes of solids—Disk and washer method #2
AP Calculus

Name_____

Find the volume of the solid formed by the equations:

1.) $y = x^2$, $y = 0$, $x = 2$, is rotated about:

a.) the x-axis $\frac{32\pi}{5}$

b.) the y-axis 8π

c.) the line $y = 4$ $\frac{224\pi}{15}$

d.) the line $x = 2$ $\frac{8\pi}{3}$

2.) $y = 1 + \sqrt{x}$, $y = 1$, $x = 4$ is rotated about:

a.) the x-axis $\frac{56\pi}{3}$

b.) the y-axis $\frac{128\pi}{5}$

c.) the line $y = 3$ $\frac{40\pi}{3}$

d.) the line $x = 6$ $\frac{192\pi}{5}$

3.) $y = x^2$ and $y = \sqrt[3]{x}$ is rotated about:

a.) the x-axis $\frac{2\pi}{5}$

b.) the y-axis $\frac{5\pi}{14}$

c.) the line $y = 1$ $\frac{13\pi}{30}$