Name: _____   Date: _____   Period: _____ 2017

AP Calculus – Worksheet 7.3b – Volume by Revolution

a) Sketch and find the area enclosed by the following.
b) Sketch and find the volume of the object after it has been rotated around the given axis.

Func , Func, x-interval, axis of rotation

1. $y = x^2$, $y = 0$, and [0, 4], x-axis

2. $y = x^2$, $x = 0$, and [0, 4], y-axis

3. $y = x^2 + 1$, $y = 0$, and [0, 4], x-axis

4. $y = x^2$, $y = 0$, and [0, 4], $y = -1$ axis

5. $y = (x-1)^2$, $x = 1$, and [1, 3], y-axis

6. $y = x^2$, $x = 0$, and [0, 2], $x = -1$ axis

7. $y = -x^2 + 1$, $y = 0$, and [0, 1], x-axis

8. $y = -x^2 + 1$, $y = 0$, and [0, 4], x-axis