***Math* 2414- *Calculus* II *Homework Sec* 1.5-6 Name:**

1. Find the length of the curve  on the interval 
2. Find the length of the curve  on the interval 
3. Find the length of the curve  on the interval 
4. Find the length of the curve  on the interval 
5. Let  and let *R* be the region bounded by the graph of *f* and the  on the interval 
6. Find the area of the surface generated when the graph of *f* on  is revolved about the .
7. Find the volume of the solid generated when *R* is revolved about the .
8. Find the volume of the solid generated when *R* is revolved about the .
9. Let  and let *R* be the region bounded by the graph of *f* and the on the interval 
10. Find the area of the surface generated when the graph of *f* on  is revolved about the .
11. Find the volume of the solid generated when *R* is revolved about the .
12. Find the surface area of a cone (excluding the base) with radius 4 and height 8 using integration and a surface area integral.
13. Let  and let *R* be the region bounded by the graph of *f* and the on the interval 
14. Find the area of the surface generated when the graph of *f* on  is revolved about the .
15. Find the length of the curve  on 
16. Find the volume of the solid generated when *R* is revolved about the .
17. Find the volume of the solid generated when *R* is revolved about the .