Bonus Homework for §8.1   Calculus 2   9/15/2004

Each problem is worth zero points, but there is a chance you'll learn some math.

1. Find the area of the region bounded by $y = 9 - x^2$ and the x axis.   36

2. Find the area of the region bounded by $x = 16 - y^4$ and the y axis.   256/5

3. Find the area of the entire region bounded by $y = x^3$ and $y = x$.   ½

4. Find the area of the region between $y = x^3$ and the line tangent to it at (1,1).   27/4

5. Find the area of the portion of the circle $x^2 + y^2 = 4$ which lies to the right of the line $x = 1$.

$$\frac{4\pi}{3} - \sqrt{3}$$

6. Find the area of the region bounded between $y = 1/x$, $y = 1/x^2$, and $x = 2$.   ln 2 - ½

7. Find the area of the region between $x = 5y - y^2$ and $y = x$.   32/3

8. The curves $y = \sin x$ and $y = \cos x$ intersect infinitely many times. Find the area of one of the regions bounded between them. $2\sqrt{2}$