

Chapter 4 Review Exercises

26. a – b                      28. -1                      32.  $e^{-1}$

Chapter 5 True- False

12. True

Chapter 5 Review Exercises

44.  $-\frac{1}{4} \cot \csc^3 t - \frac{3}{8} \csc t \cot t + \frac{3}{8} \ln |\csc t - \cot t| + C$

50. 17.739438              56. Divergent              58. Divergent              60.  $\frac{40}{3}$               64. 8.6 miles

Chapter 6 Review Exercises

2. 36              4.  $\mathbf{p} \left( \frac{25}{12} + \frac{1}{4e^4} \right)$               6. (a)  $\frac{5}{12}$               (b)  $\frac{41\mathbf{p}}{105}$               12.  $\frac{64}{15}$

Review Problems – Area and Volume

1.  $\frac{64}{5}$               2.  $\frac{96}{5}$

3.

(a)  $\mathbf{p} \int_0^4 x^3 dx$

(e)  $\mathbf{p} \int_0^8 y^{4/3} dy$

(b)  $\mathbf{p} \int_0^8 (4 - y^{2/3})^2 dy$

(f)  $\mathbf{p} \int_0^4 (8 - x^{3/2})^2 dx$

(c)  $\mathbf{p} \int_0^4 [64 - (8 - x^{3/2})^2] dx$

(g)  $\mathbf{p} \int_0^8 [16 - (4 - y^{2/3})^2] dy$

(d)  $\mathbf{p} \int_0^8 (16 - y^{4/3}) dy$

(h)  $\mathbf{p} \int_0^4 (64 - x^3) dx$

4.  $\int_0^4 x^3 dx$

5.  $\frac{\mathbf{p}}{2} \int_0^4 \left( \frac{8 - x^{3/2}}{2} \right)^2 dx$