

Calculus II Spring 2015

Final Exam Answers

1a. $-\frac{\pi}{8}$

1b. $\frac{5\sqrt{2}}{12}$

2a. $\frac{2}{3}\sqrt{x^3+1} + C$

2b. $\frac{3}{2}\ln|x| + \ln|2x+1| + C$

3. $\int_0^2 \pi[(2+x)^2 - (x^2)^2] dx$

4. $\frac{5}{3}$

5. $-\frac{1}{16} \cdot \frac{\sqrt{16-x^2}}{x} + C$

6. Diverges

7. $\frac{64}{3}$

8. $(x-1) - \frac{1}{2}(x-1)^2 + \frac{1}{3}(x-1)^3$

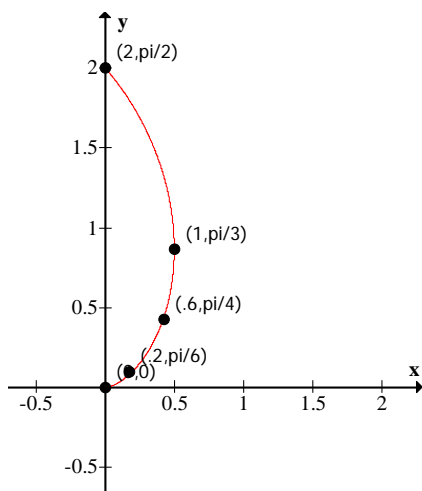
9a. Converges

9b. Converges

9c. Diverges

10a. $3 \leq x \leq 5$

10b. 1



11.