MAT 115 Worksheet 17 Answers
Thursday, Nov 30 2017

1. (a) 1024 liters; (b) 1 hour 40 minutes.

2. (a) $\frac{1}{3}\csc^3 x - \frac{1}{5}\csc^5 x + C$; (b) $\ln|x| - \frac{1}{2}\ln(x^2+1) + C$; (c) $\frac{2}{5}(4\sqrt{2} - 3\sqrt[4]{3})$

3. $3/2 + \ln 4$

4. $\pi(e-1)^2$

5. (a) $2\sqrt{3} - 4/3$; (b) $\frac{20}{9}\pi$

6. $\ln\left|\dfrac{1 - \sqrt{1-x^2}}{x}\right| - \dfrac{\arcsin x}{x} + C$