MAT 115 Worksheet 16 Answers Tuesday, Nov 28 2017

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

2.
$$5/12 - \frac{1}{2} \ln 2$$

$$3. \ \frac{1}{6}\sin^3 2x - \frac{1}{10}\sin^5 2x + C$$

4.
$$\frac{2}{13}e^{2x}\cos 3x + \frac{3}{13}e^{2x}\sin 3x + C$$

5.
$$4 - \pi$$

6.
$$\ln \frac{\sqrt{e^x+1}-1}{\sqrt{e^x+1}+1} + C$$

7.
$$\frac{\pi}{12} + \frac{\sqrt{3}}{2} - 1$$

$$8. \ \frac{\sqrt{3}}{3} \tan^{-1} \left(\frac{\sin x - 3}{\sqrt{3}} \right) + C$$

9.
$$2 - \frac{\pi}{2}$$

10.
$$2\sqrt{x} - 3\sqrt[3]{x} + 6\sqrt[6]{x} + 6\ln(\sqrt[6]{x} + 1) + C$$