MAT 115 Worksheet 11 Answers Tuesday, Nov 7 2017

1.
$$-\frac{1}{4}\cos^4 x + C$$

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

3.
$$\frac{1}{8}x - \frac{1}{32}\sin 4x + C$$

4.
$$\frac{1}{2} \tan(2x-1) + C$$

5.
$$\ln|\cos(e^{-x})| + C$$

6.
$$\frac{1}{3} \tan^3 x + C$$

7.
$$\frac{1}{16} \sec^4(4x) + C$$

8.
$$\frac{1}{7}\sec^7 x - \frac{1}{5}\sec^5 x + C$$

9.
$$\frac{2}{3} \tan^{3/2} x + \frac{2}{7} \tan^{7/2} x + C$$

10.
$$2\sin^{-1}(x/2) + \frac{1}{2}x\sqrt{4-x^2} + C$$

11.
$$8\sin^{-1}(x/4) - \frac{x\sqrt{16-x^2}}{2} + C$$

12.
$$\frac{1}{16} \tan^{-1}(x/2) + \frac{x}{8(4+x^2)} + C$$

13. (a)
$$(85\sqrt{85} - 8)/243$$
, (b) $(80\sqrt{10} - 13\sqrt{13})/27$, (c) $17/6$

14. (a)
$$35\pi\sqrt{2}$$
, (b) 8π