

Math 132: Calculus for the Physical & Life Sciences 2
Problem Set 4 – Answers

1. a.

$$\frac{1}{2} \ln |\sqrt{9 + 4x^2} + 2x| + C$$

c.

$$\sin^{-1} \left(\frac{x+1}{2} \right) + C.$$

2. b.

$$\frac{x^3}{3} - 4x + 8 \tan^{-1}(x/2) + C.$$

d.

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

3. a.

$$\frac{x}{2} \sqrt{x^2 + 25} - \frac{25}{2} \ln |x + \sqrt{25 + x^2}| + C.$$

c.

$$\sec^{-1}(e^x) + C.$$

e.

$$\tan^{-1}(\tan(x) + 1) + C.$$