

Homework #7 Final Answers

Section 7.1

37. $2\sqrt{x}e^{\sqrt{x}} - 2e^{\sqrt{x}} + C$

Section 7.2

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

4. $\frac{8}{15}$

7. $\frac{\pi}{4}$

11. $\frac{\pi}{16}$

19. $\frac{t^2}{4} - \frac{t \sin(2t)}{4} - \frac{\cos(2t)}{8} + C$

Plus Q 1: $\frac{2}{15}$

Plus Q 2: $\frac{9}{2} \arcsin\left(\frac{x}{3}\right) + \frac{x}{2} \sqrt{9-x^2} + C$

Plus Q 3: $\frac{1}{16} \left[\frac{x}{\sqrt{x^2+4}} - \frac{1}{3} \left(\frac{x}{\sqrt{x^2+4}} \right)^3 \right] + C$

Plus Q 4: $\frac{x^2}{2} \arcsin x - \frac{1}{4} \arcsin x + \frac{1}{4} x \sqrt{1-x^2} + C$