Solutions to Week in Review 4

Section 8.2

1. $-\frac{1}{3}\cos^3 x + \frac{1}{5}\cos^5 x + C$
2. $\sin x - \frac{2}{3}\sin^3 x + \frac{1}{5}\sin^5 x + C$
3. $\frac{\pi}{4}$
4. $\frac{1}{7}\sec^7 x - \frac{1}{5}\sec^5 x + C$
5. $\frac{8}{15}$

Section 8.3

6. $\frac{-4}{3}(4-x^2)^{\frac{3}{2}} + \frac{1}{5}(4-x^2)^{\frac{5}{2}} + C$
7. $\frac{8}{3}(2-\sqrt{2})$
8. $\frac{\sqrt{16x^2-9}}{9x} + C$
9. $\ln|\frac{\sqrt{x^2+4x+8}}{2} + \frac{x+2}{2}| + C$
10. $\frac{1}{4}(\sin^{-1} 2x + 2x\sqrt{1-4x^2}) + C$

Section 8.4

11. $\ln|x| + \frac{1}{x+1} - \ln|x+1| + C$
12. $2\ln|x-1| + \frac{1}{2}\ln(x^2+1) - 3\arctan x + C$
13. $\frac{1}{2}x^2 - 4x + \frac{1}{4}\ln|x| + \frac{71}{4}\ln|x+4| + C$