HW #8 Final Answers

1. $\frac{1}{16}\left[\operatorname{arcsec}\left(\frac{x}{3}\right) - \frac{3\sqrt{x^2-9}}{x^2}\right]+C$

2. $\frac{1}{16}\left[\frac{\sqrt{x^2-16}}{x}\right]+C$

X1. $\arcsin\left(\frac{x+2}{\sqrt{8}}\right)+C$

X2. $\frac{\pi}{6\sqrt{3}}$

3. X $2\left[\arcsin\left(\frac{x+1}{2}\right) + \frac{(x+1)\sqrt{4-(x+1)^2}}{4}\right]+C$

4. X $\frac{1}{2}\ln\left|(x+1)^2+4\right| + \frac{3}{2}\arctan\left(\frac{x+1}{2}\right)+C$

5. X $\frac{\pi}{\sqrt{3}}$

6. X $-\ln 10$

7. X $\ln\left(\frac{3}{8}\right)$ OR $-\ln\left(\frac{8}{3}\right)$

8. X $-\frac{\arctan x}{x} + \ln|x| - \frac{1}{2}\ln|x^2+1| + C$

9. X $\ln 2$

10. X $\ln|x-1| - \frac{1}{2}\ln|x^2+9| - \frac{1}{3}\arctan\left(\frac{x}{3}\right)+C$