

Answers to Week 4 Week in Review

Section 7.1

1. $x \sin(x) - \cos(x) + C$
2. $-\frac{5}{4}e^{-2} + \frac{1}{4}$
3. $\frac{1}{3}x^3 \ln(x) - \frac{1}{9}x^3 + C$

Section 7.2

1. $\frac{2}{15}$
2. $\frac{8}{15}$
3. $\frac{3}{8}x + \frac{1}{4} \sin(2x) + \frac{1}{32} \sin(4x) + C$

Exam I Review

1.
 - (a) $\frac{2}{3}$
 - (b) $-\frac{1}{27}(1 - 9x^2)^{3/2} + C$
2.
 - (a) $\frac{1}{12}$
 - (b) 48
3.
 - (a) $\frac{4\pi}{5}$
 - (b) $\frac{\pi}{10}$
 - (c) $\frac{\pi}{40}$
4. 225 ft-lbs
5. $5\pi\rho g$ J