

Answers to Week in Review 3

1. 120 Foot pounds
2. 60 Joules
3. 15 Foot pounds
4. $\frac{49}{2}$ Joules
5. 4875 Joules
6. $\frac{11600}{3}$ Foot pounds
7. 24500 Joules
8. 2250 Foot Pounds
9. $\frac{12544000}{3}\pi$ Joules
10. $\frac{38}{15}$
11. $b = 1$ or $b = 2$
12. $f_{ave} = 3$; $x = 1, 3$
13. $\frac{1}{7}xe^{7x} - \frac{1}{49}e^{7x} + C$
14. $3x \sin x + 3 \cos x + C$
15. $\frac{1}{4} + \frac{1}{4}e^2$
16. $-\frac{1}{x} \ln x - \frac{1}{x} + C$
17. $3 \ln 3 - 2 \ln 2 - 1$
18. $x \arccos x - \sqrt{1 - x^2} + C$
19. $\frac{1}{3}(-x^3 \cos(x^3) + \sin(x^3)) + C$