HOMEWORK ASSIGNMENTS FOR MATH 2177
(SPRING 2015, MWF 1:50 P.M. & 3:00 P.M.)

✓ You can check your answers to odd-numbered questions by consulting the back of the textbook.

Homework Assignment 1: (due Tuesday, January 20)
§1.8: # 23, 28, 36, 40, 48 ["graphing utility" not required for 23, 28]
§1.9: # 15, 21, 26, 32, 49

Homework Assignment 2: (due Tuesday, January 27)
§2.1: # 13, 27, 31, 50
§2.2: # 25, 29, 52, 54, 59, 64, 78

Homework Assignment 3: (due Tuesday, February 3)
§2.3: # 19, 27, 36*, 51, 56, 59**
§2.4: # 16, 21, 23, 38, 39
*Find the area of the indicated region as well. **Indicate explicitly the volume in each case.

Homework Assignment 4: (due Tuesday, February 10)
§2.5: # 33, 41, 47, 54, 78*
*Do this problem twice, both by cylindrical coordinates and by spherical coordinates. You should get the same answer, namely $\pi Rh^2 - \frac{1}{3}\pi h^3 = \frac{1}{3}\pi h^2(3R - h)$.

Homework Assignment 5: (due Tuesday, February 17)
§3.1: # 16, 46, 50
§3.2: # 17, 20, 29, 32, 41, 60

Homework Assignment 6: (due Tuesday, February 24)
§3.3: # 17, 18, 26, 30, 42, 43
§4.1: # 15, 31, 34

Homework Assignment 7: (due Tuesday, March 3)
§4.2: # 21*, 28*, 30*, 35, 50, 53*
§4.3: # 20, 23**, 24(a)
*There is more than one way to express the correct answer (depending on the choice of free variables).
**The answer given in the back of the textbook is incorrect.

Homework Assignment 8: (due Tuesday, March 10)
§4.4: # 2, 10
§4.5: # 31, 54, 57
§4.6: # 30, 32

Homework Assignment 9: (due Tuesday, March 24)
§4.7: # 6, 12, 31
§4.9: # 20, 26, 50
Appendix C (page 473): # 5, 11, 21, 30, 33, 49, 50

Homework Assignment 10: (due Tuesday, March 31)
§5.1: # 47(a)–(c), 58, 62, 70
§5.2: # 18, 24, 30, 36, 42

Homework Assignment 11: (due Tuesday, April 7)
§5.3: # 22, 23, 30, 34, 40, 52
§5.4: # 11, 19*
*Replace parts (d) and (e) with: "Explain why the motion is underdamped/overdamped if the value of k in part (a) is increased/decreased by 50%."

Homework Assignment 12: (due Tuesday, April 21)
§6.2: # 14, 16, 21
§6.3: # 15, 19
§6.4: # 7, 18*
*Determine (without calculation) the Fourier sine series for $f(x)$ from the ones already obtained for πx and x^2.