MAA 3200 – INTROD TO ADV MATH FLORIDA INT'L UNIV.
HOMEWORK SHEET     THIRD EDITION

**TEXTBOOKS**:   1. "How to Prove it" (3d edition) by Daniel J. Velleman  (2019)
                        and  2. "Introduction to Analysis (5th edition)" by Edward D. Gaughan (1998).

**Solutions**: See Prof. Ram's Homepage for these under Solutions to HW Problems. These are most of the homework problems for the course.  Later on in the semester, a few more problems may be added and a few may be deleted during class.

**1.  HOW TO PROVE IT:  (3rd EDITION)  by  Daniel J. Velleman (2019)**

 Ch. 1   √ Sec. 1 #  1, 2, 5, 7, 9. √ Sec. 2 #  1, 2, 3, 4, 5, 7, 9, 10, 15, 16, 17.

           √ Sec. 3 #  1,  2, 3, 4, 5, 6, 8, 9. √ Sec. 4 #  1, 5, 9, 10.
          √ Sec. 5 #  1, 2, 3, 4, 6, 9. √ (Ch. 1 was updated)

 Ch. 2  √ Sec. 1 #  1, 2, 3, 4, 8, 9. √ Sec. 2 #  1, 2, 3, 4, 5, 6, 7, 8, 9.

         √ Sec. 3 #  1, 2, 3, 6, 8, 11, 12, 13, 14. √ (Ch.2 was updated)

 Ch. 4   √ Sec. 1 # 4, 5, 6, 7, 12. √ Sec. 2 # 1, 2, 5, 8, 9
            √ Sec. 3 # 1, 2, 3, 4, 5, 12,13, 14, 16. √ Sec. 6 # 1, 2, 3, 4, 10, 20a, 23a. (updated)

Ch. 5   √ Sec. 1 # 1, 2, 3, 5, 6, 11. √ Sec. 2 # 5, 8, 9, 11, 13
          √ Sec. 3 # 3, 6, 7, 11. (Ch. 5 was updated) √ Sec. 5 (after Thm 5.5.2) # 1, 2, 3, 4.

Ch. 6 √ Sec. 1 # 1, 2, 3, 4, 7, 9, 10, 13, 15, 20. √ Sec. 2 # 11, 12, 13, 14.
      √ Sec. 3 # 1, 3, 6, 10, 12, 15, 16. √ Sec. 4 # 4, 11, 17, 18. (Ch.6 was updated)

Ch. 8   √ Sec. 1 # 1, 3, 4, 5, 12, 17.                        √ Sec. 2 # 1, 5, 6 (old #7 deleted in 3rd ed.)
            √ Sec. 3 # 1, 3, 4, 9, 12. √ (Ch.7 was updated)

**2.  INTRODUCTION TO ANALYSIS (5th edition)  by  Edward D. Gaughan (1998)**

        Chapter 0   Sec. 5    Nos.  39, 40, 41, 42, 43, 44, 45.

         Chapter 1   Sec. 1    Nos    1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
                           Sec. 2    Nos.   14, 15, 16, 17, 18, 19, 20, 21, 22, 24
                           Sec. 3    Nos.   25, 26, 27, 28, 30, 32, 33,
                           Sec. 4    Nos.   34, 35, 36, 37, 38, 40, 43, 44, 47.

         Chapter 2   Sec. 1    Nos.   1, 2, 3, 4, 5, 6, 7, 8
                           Sec. 2    Nos.   10, 11, 12, 14
                          Sec. 3    Nos.   16, 18, 19, 22
                           Sec. 4    Nos.    23, 24, 25.   END OF HW.

**TEXTBOOKS**:   1. "How to Prove it" (2nd edition) by Daniel J. Velleman  (2006)

 is still very useful – but it is not the official textbook for the course.

**Solutions**: See Prof. Ram's Homepage for these under Solutions to HW Problems. These are most of the homework problems for the course.  Later on in the semester, a few more problems may be added and a few may be deleted during class.

**1.  HOW TO PROVE IT:  (2nd EDITION)  by  Daniel J. Velleman (2006)**

 Ch. 1   Sec. 1 #  1, 2, 4, 5, 6, 7. Sec. 2 #  1, 2, 3, 4, 5, 7, 9, 10, 15, 16, 17

           Sec. 3 #  1,  2, 3, 4, 5, 6, 7, 8. Sec. 4 #  1, 5, 8, 9.
          Sec. 5 #  1, 2, 3, 4, 5, 8.

 Ch. 2  Sec. 1 #  1, 2, 3, 4, 7, 8. Sec. 2 #  1, 2, 3, 4, 5, 6, 7, 8, 9

         Sec. 3 #  1, 2, 3, 6, 8, 10, 11, 12, 13.

 Ch. 4   Sec. 1 # 4, 5, 6, 7, 10. Sec. 2 # 1, 2, 4, 7, 9
            Sec. 3 # 1, 2, 3, 4, 5, 12,13, 14, 16. Sec. 6 # 1, 2, 3, 4, 10, 19a, 24a.

Ch. 5   Sec. 1 # 1, 2, 3, 5, 6, 8. Sec. 2 # 5, 6, 7, 9, 10
          Sec. 3 # 3, 6, 7, 11. Sec. 4 (after Theorem 5.4.2) # 1, 2, 3, 4.

Ch. 6 Sec. 1 # 1, 2, 3, 4, 7, 9, 10, 12, 14, 19. Sec. 2 # 10, 11, 12, 13
      Sec. 3 # 1, 3, 6, 10, 12, 15, 16. Sec. 4 # 3, 10, 19, 20.

Ch. 7   Sec. 1 # 1, 3, 4, 5, 12, 15.                        Sec. 2 # 1, 4, 5, 7
            Sec. 3 # 1, 3, 4, 9, 12.

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