University of Maryland University College

MATH103: Chapter 7 Assignment
Algebra: Graphs, Functions, and Linear Systems

The assigned exercises are from the fifth edition of the textbook. The exercises begin at the specified page number and are the exercise sets at the end of each section. Do all listed problems neatly with pencil on paper. Showing your step-by-step solution process is the important task for all assignments, because it reinforces your understanding of the content. Cleanly, erase all errors before writing the correct solution and circle your answer.

Odd problem solutions are in the Student's Solutions Manual. Even number problem answers (underlined) should be checked with the answers provided on the back of this handout. If you feel the answer is incorrect, then please discuss this problem in the next class. Your homework will be collected and graded at the beginning of Exam 2. You will receive a zero on the assignment if it is not submitted at that time.

Date Due: Week 4 Class 1

Section	Page	Exercise Set Selected Problems
7.1	379	1, 3, 5, 7, 9, 13,17, 21, 23, 25, 33, <u>36</u>, 37, 39, <u>42</u>, 47, 51, <u>56</u>, 59, 61, <u>62</u>, 77, 79, 81, 83
7.2	391	3, 5, <u>10</u>, 11, 15, 17, <u>20</u>, 23, 27, 29, 31, 33, 37, 41, 47, 59, 63, <u>64</u>
7.3	405	1, 3, <u>4</u>, 7, 15, <u>20</u>, 23, 25, <u>32</u>, 33, 37, <u>40</u>, Problems 7.3.A, 7.3.B, and 7.3.C as listed at bottom of this page below.
7.4&7.5		Skip these sections. Will not be covered on exam.
7.6	433	1, 3, 7, 11, 13, 15, 17, 19, 25, 31a, 33, 35, 37, 39a

Problem 7.3.A: One pan pizza and two beef burritos provide 1980 calories. Two pan pizzas and one beef burrito provide 2670 calories. Find the caloric content of each item.

Problem 7.3.B: A hotel has 200 rooms. Those with kitchen facilities rent for $100 per night and those without kitchen facilities rent for $80 per night. On a night when the hotel was completely occupied, revenues were $17,000. Hom many of each type of room does the hotel have?

Problem 7.3.C: Cholesterol intake should be limited to 300 mg or less each day. One serving of scrambled eggs from McDonald's and one Double Beef Whopper from Burger King exceed this intake by 241 mg. Two servings of scrambled eggs and three Double Beef Whoppers provide 1257 mg of cholesterol. Determine the cholesterol content in each item.

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Answers to assigned even numbered exercises arranged by section:

7.1) 36 (a) 25 (b) -3   42 (a) 46 (b) -2   56 function   62 not a function

7.2) 10 -2; falls   20 0; horizontal   64 (a) $p(x)=0.36x+15$ (b) 51%

7.3) 4 not a solution   20 (4, 1)   32 (2, -1)   40 infinitely many solutions (concurrent)

Problem 7.3.A: Pizza = 1120 calories, Burritos = 430 calories

Problem 7.3.B: Kitchen Rooms = 50 rooms, Non-kitchen Rooms = 150 rooms

Problem 7.3.C: McDonald's Scrambled Eggs = 366 mg cholesterol
Burger King Double Beef Whopper = 175 mg cholesterol