

REVIEW TEST 2 – Section 3.3 & Chapters 4, 5, 6

Optional @ 10 points towards Test 2 – Due Tuesday

Solve all textbook exercises listed on this handout.

SECTION 3.3 – Textbook page 200: # 7, 9, 17, 19, 23, 29, 41

CHAPTER 4

1) **Textbook:** Section 4.1 - # 31 – 61odd , 83, 84, 88

2) Solve the following inequalities; graph the solution set; write the solution set in interval notation.

a) $-\frac{2}{3}(2x + \frac{3}{2}) \geq 14$; b) $-\frac{2}{5} < \frac{x-4}{3} \leq 4$; c) $\frac{1}{2}x - 3 > 2x + 3(x - \frac{1}{3})$;

d) $2(x+2) \geq \frac{1}{5} + 2x$ e) $\frac{2x+3}{3} + \frac{3x-4}{2} > \frac{x-2}{2}$

3) Solve the following:

a) $\left|3x + \frac{1}{2}\right| = \frac{5}{3}$, b) $\left|x - \frac{1}{4}\right| = |x + 2|$, c) $\left|2x + \frac{4}{7}\right| + 1 = 2$, d) $|2x + 1| < -2$; i) $3|2x + 5| > 9$

e) $\left|\frac{3}{5}x - 2\right| - \frac{1}{2} \geq 4 + \frac{1}{2}$, f) $|x - 1| + 4 \leq 11$, g) $|x| + 7 \geq 7$, h) $-|3x + 2| - \frac{1}{2} > 2$, j) $\left|\frac{x+1}{x+8}\right| = \frac{2}{3}$

4) For what values of k does $|x| + k = 0$ have:

a) exactly one solution; b) exactly two solutions; c) no solution. Provide an example for each case.

5) **Textbook:** Section 4.4 - # 41, 42, 43, 44, 63

6) Maria is investing in the hotel business. She has bought two hotels and will expand her investment when her total profit from the two hotels is at least \$10,000.

a) Write an inequality to model the problem.

b) Graph the solutions set.

c) What does (-1000, 12,000) mean in the context of the problem?

d) What does (5000, 4000) mean in the context of the problem?

CHAPTER 5 – Handout Chapter 5 (go to www.timetodare.com)

CHAPTER 6 – Rational expressions, Functions, and Equations

Textbook:	Section 6.1: #1 – 15 odd, 17 – 26 , 99, 101, 105 – 108, 109 – 112
	Section 6.2: # 95 – 97
	Section 6.3: # 43 – 49 odd
	Section 6.4: # 17, 19, 23, 33, 35, 51
	Section 6.6: # 39 – 50 odd
	Section 6.7: #1 – 13 odd

Recognize the vertical and horizontal asymptotes of a given graph: give the equation of the asymptote and the reasoning.