Math 71B – Summer 2006

SKILLS PORTFOLIO B
SYSTEM OF LINEAR EQUATIONS
INEQUALITIES
ABSOLUTE VALUE EQUATIONS

Answer the following questions in your portfolio:

Textbook Section 3.1: # 59, 63, 65, 69, 77, 79, 81

Textbook Section 3.2: # 11, 13, 19, 25, 27, 47

Textbook Section 3.3: # 7, 9, 17, 19, 23, 27

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

a) $-3(2x+1) \geq 14$;

b) $-\frac{2}{5} < \frac{x-4}{3} \leq 4$;

c) $2(x+2) \geq \frac{1}{5} + 2x$

d) $\frac{2x+3}{3} + \frac{3x-4}{2} > \frac{x-2}{2}$

2) Solve the following equations and inequalities with absolute value.

a) $\left|3x+\frac{1}{2}\right| = \frac{5}{3}$,

b) $|x-1| = |x+2|$,

c) $\left|2x+\frac{4}{7}\right| + 1 = 2$,

d) $|2x+1| < -2$;

e) $|3x-2| - 1 \geq 4 + 1$,

f) $|x-1| + 4 \leq 11$,

g) $|x| + 7 \geq 7$

h) $-|3x+2| - 3 > 2$

i) $3|2x+5| > 9$