MATH 1310 (Winter Session):

Homework 1:

These questions will make reference to the course textbook (which is available in the Courseware Website, main page, upper-left corner. Make sure you are looking at the Textbook for MATH 1310).

1. Section 1.2, Question 38

a. $5x + 4y = 35$

b. $y = (^{5}/_{4})x + (^{35}/_{4})$

c. $5x – 4y = 35$

d. $y = (-^{5}/_{4})x – (^{35}/_{4})$

2. Section 1.2, Question 52

a. $y = (^{3}/_{4})x + (^{23}/_{4})$

b. $y = (^{-4}/_{3})x + (^{33}/_{4})$

c. $y = (^{3}/_{4})x - (^{17}/_{4})$

d. $-3x + 4y = -5$

3. Section 1.3, Question 4

a. (3, 2) only

b. (5, 4) and (-7, -6)

c. (3, 2) and (-7, -6)

d. (3, 2) and (5, 4)

4. Section 1.3, Question 28

a. x-int: (±1.5, 0); y-int: (0,9)

b. x-int: (±1.5, 0); y-int: None

c. x-int: (1.5, 0); y-int: (0,-1.5)

d. x-int: None; y-int: (0, ±1.5)

5. Section 2.1, Question 16

a. x = -13/24

b. x = 12/47

c. x = 23/24

d. x = - 23/47

6. Section 2.2, Question 12

a. width: 29 inches; length: 36 inches

b. width: 51.5 inches; length: 58.5 inches

c. width: 24 inches; length: 31 inches

d. width: 26 inches; length: 33 inches

7. Section 2.3, Question 34

a. $x = -3 \pm \frac{\sqrt{30}}{2}$

b. $x = 3 \pm \frac{\sqrt{30}}{2}$

c. $x = -3 \pm \frac{\sqrt{15}}{2}$

d. $x = -3 \pm \frac{\sqrt{12}}{2}$

8. Section 2.4, Question 28

a. $(3/5) + (4/7)i$

b. $(-27/74) + (3/74)i$

c. $(43/74) + (1/74)i$

d. $(1/25) + (1/49)i$

9. Section 2.6, Question 38

a. (2, 6]

b. [2, 6)

c. (-2, 6]

d. [-2,-6)

10. Section 6.1, Question 20

a. $(\frac{13}{30}, \frac{55}{30})$

b. $(-\frac{13}{15}, \frac{7}{15})$

c. Infinitely Many Solutions

d. { }