Grima MAT 151
Chapter 8 Practice Test

#1-2: Solve each system of equations using either the substitution method or the elimination method, 0 points if no work is shown even if answer is correct.

1) $\frac{2}{3}x+\frac{1}{4}y=3$
$x=y-1$

2) $3x+2y=13$
$x-5y=-7$

3) Solve each system of equations, by hand without matrices, 0 points if no work is shown even if answer is correct.

$2x+4y-5z=17$
$-x+y+2z=-5$ (pair the middle equation with the other 2 and drop out the x's)
$x-3y+3z=-2$

4) Solve the system of equations using matrices and row operations. 0 points if no matrix work is shown even if answer is correct.

$3x+2y=16$
$2x-3y=-11$

#5-6 Use the following matrices to answer all the problems in this section.

A = $\begin{bmatrix}1 & 0\\ 3 & 2\\ 6 & 1\end{bmatrix}$	B = $\begin{bmatrix}4 & 5\\ 1 & 2\end{bmatrix}$	C = $\begin{bmatrix}1 & 0 & -1\\ 7 & 2 & 4\end{bmatrix}$
D = $\begin{bmatrix}3 & 2 & 0\\ 4 & -1 & 3\end{bmatrix}$		

5) 2D – C

6) AC

7) has been deleted

8) Solve the system of equations using Cramer's rule, 0 points if solved with another method, even if answer is correct.

$$3x - 2y = 4$$
$$2x + 3y = 7$$

D = _____

D_x = _____

D_y = _____

X =_____ y = _____

#9-10: Solve the following systems of equations.

9)
$$x + y = 5$$
$$x^2 + y^2 = 13$$

10)
$$x + y = 4$$
$$x^2 + y = 10$$

11) graph the system of linear inequalities by hand. Label the corner points.

$$x + y \leq 6$$
$$2x + y \leq 10$$
$$x \geq 0, \quad y \geq 0$$