

Name

MAT 101

Date

QUIZ

CHAPTER 8-Linear Systems

Directions: Make sure to answer each problem completely and show work.

1. Calculations Involving Slope of a Line

a. Find the slope of and the y-intercept of the line whose equation is:

$$3x + 4y = 8$$

b. Find the equation of a line passing through the points (6, -2) and (9, 4).

- c. Find the equation of a line passing through (6, 4) parallel to the line:

$$2x + 5y = 7$$

- d. Find the equation of a line passing through (2, 6) perpendicular to the line:

$$y - 2 = 3(x - 5)$$

2. Find the solution to the following system of linear equations using substitution method:

$$-2x + 6y = 4$$

$$5x + y = 6$$

3. Find the solution to the following system of linear equations using elimination method:

$$-x - 6y = -23$$

$$-2x + 5y = 5$$

4. Find the solution to the following system of linear equations with ***a method of your choice***:

$$2x + 5y = 3$$

$$x + 3y = 2$$