

QUIZ 1 CLASS 20

Linear Algebra I

Section:
Week 2

NAME & ID(Please print legibly)

PLEASE SHOW ALL YOUR WORK.

1. Solve the two systems:

$$x + 2y - 2z = 1$$

$$2x + 5y + z = 9$$

$$x + 3y + 4z = 9$$

and

$$x + 2y - 2z = 9$$

$$2x + 5y + z = 9$$

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

2. Given s system of the form

$$-m_1x + y = b_1$$

$$-m_2x + y = b_2$$

where m_1, m_2, b_1 , and b_2 are constants.

1. Show that the system will have a unique solution if $m_1 \neq m_2$.
2. Show that if $m_1 = m_2$, then the system will be consistent only if $b_1 = b_2$.