

Supplements for Math 260S Lab Hour (Category 8 and 9)

1. (1 hour)

Solving two/three equations with two/three unknowns for a unique solution. Use any appropriate method to solve the equations:

- Review possibilities of solutions for two equations and two unknowns.  
Draw graphs to show: Unique solution, no solution, infinite solutions.
- Review Substitution and Elimination method using the problems below.
- $3x + y = 4$   
 $y = 6x - 5$
- $6x - 10y = -22$   
 $-11x - 15y = 27$
- $4y + 2x = 18$   
 $3x + 6y = 26$
- $3x - y = 7$   
 $x + y = 1$
- $2x = 4y + 7$   
 $x - 2y = 5$
- $x - y = 10$   
 $3x = 3y + 30$
- $\frac{x}{2} + \frac{y}{3} = \frac{7}{6}$   
 $\frac{2x}{3} + \frac{3y}{4} = \frac{5}{4}$
- $x + y + z = -5$   
 $2x + 3y - 2z = 8$   
 $x - y + 4z = -21$
- $-3x + y - 2z = 8$   
 $-x + 2y - z = 5$   
 $2x + y + z = -3$
- $2x + 2y = 0$   
 $4x + 4z = 4$   
 $2x + y + z = 2$
- $x + 3y - 3z = 12$   
 $3x - y + 4z = 0$   
 $-x + 2y - z = 1$

2. (3 hours)

Solving equations: Quadratic Type, Absolute Value, fractional powers and radical.