

Chapter 6 - Systems of Inequalities

- graph one or more inequalities
 - graph boundary line (dashed or solid?)
 - $y = mx + b$
 - find x-int and y-int
 - use calculator.
 - decide what needs to be shaded
 - use a test point (0,0)
 - ↑ if the line doesn't go through (0,0)
 - watch out for your range + domain (EI, EW, ER)
 - stippling (discrete)
 - shading (continuous)

• Optimization Problems (Linear Programming)

See p 341

1. Create an algebraic model
 - define variables
 - restrictions (domain, range)
 - constraints (inequalities)
 - objective function (equation)
2. Graph the inequalities + find the vertices of the feasible region.
3. Determine the values for the objective function using the vertices.
4. What is desired solution (min or max value)
5. Check that the point satisfies all constraints.