Unit TEST Review: Systems of Linear Inequalities

1.   What is the unit about: system, linear, and inequalities

2. Identifying and describing variables
-- Clear descriptions including units
-- There will be two variables; not related to each other, but making decisions on how to balance them

3. Domain and Range

      -- Possible values of x and y

      -- Set the WINDOW accordingly

      -- Be aware of whether the data is
continuous or discrete

4. Creating INEQUALITIES to represent the
Restrictions of the scenario

      -- be able to read a scenario and interpret

      -- can involve one or both of the variables

5. Sketch the graph
   -- Setting the WINDOW
   -- Sketching the shape of the linear inequalities (Remember to include: labels, intercept values, and shape)
   -- can use TI-83 tools (VALUE and ZERO)
   -- or you can calculate manually

6. Solution Set
   -- identify the region of the solution
   -- mark the corners using INTERSECT
   -- verify using a TEST point

7. Optimization

-- Once you have a solution set / feasible region, be able to find ONE solution that maximizes / minimizes a goal

-- Goal determined by an OBJECTIVE function

-- Notice what happens to your goal as you choose different TEST points that move UP, DOWN, LEFT, and RIGHT