Dual Inequalities   For the Teacher
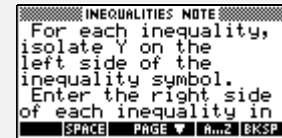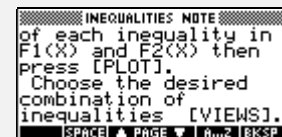
Objectives:

Using the **INEQUALITIES** aplet, the student will find the region representing the overlap of two linear inequalities.
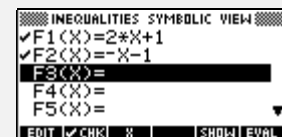
Functionality:

When the student presses **START** , the
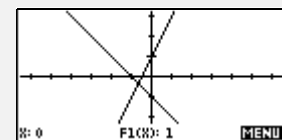**GUESS THE LINE NOTE** will be displayed.

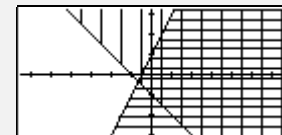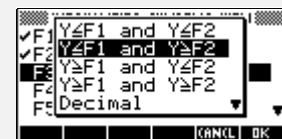If the function is in any other form than $y = f(x)$, then it must be rearranged.

Before proceeding further it is necessary to **PLOT** the two functions.

This **PLOT** screen will then be used, via the **VIEWS** menu (see right) to graph the two inequalities.

The option menu can be used to select the particular pair of inequalities desired. The dual shaded region is the intersection.

Additional Exploration:

Although only linear inequalities are shown above, this aplet will graph inequalities involving any two functions.
Other aplets are available which will:
▪ draw any number of linear inequalities and then solve a linear programming problem (optimax) on the feasible region specified.
▪ graph up to three inequalities at a time similarly to the aplet above.

These aplets are available at ***The HP HOME view*** (http://www.hphomeview.com)

Programs associated with this aplet:
     .I.SV, .I.SA, .I.ST, .I.GG, .I.GL, .I.LG, .I.LL