

Inequality Graphing App

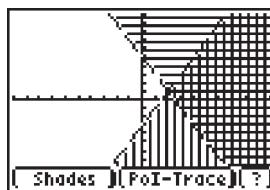
TI-84 Plus

This App makes graphing inequalities simpler for the beginning or intermediate user by giving students the opportunity to explore inequalities in greater depth. Enter inequalities using symbols and plot their graphs (including union and intersection shades). Store (x, y) coordinate pairs to lists and enter inequalities with vertical lines in an X= editor. Trace points of interest (such as intersections) between functions.

```
#= Plot1 Plot2 Plot3  
Y1=■  
Y2=  
Y3=  
Y4=  
Y5=  
Y6=  
(=)(<)(≤)(>)(≥)
```

1

Press [APPS] and choose Inequalz. Press any key to access the inequality graphing editor. The cursor will blink over the = sign.



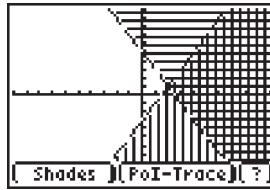
6

Press [GRAPH]. The graph will show all results that are less than $2x-3$ and greater than $-2x+5$. The intersection of the two functions is shaded differently.

```
#= Plot1 Plot2 Plot3  
Y1<2X-3  
Y2=■  
Y3=  
Y4=  
Y5=  
Y6=  
Y7=
```

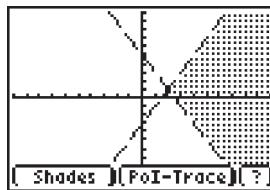
3

Enter $Y1 < 2x-3$. (This App will shade any results that are less than this function when the function is graphed.)



7

Examine just the intersection of these two inequalities. Press [ALPHA] [Y=] [Shades].



8

Highlight 1:Ineq Intersection and press [ENTER]. The graph produced will be only the intersection of the two inequalities.

4

Press [ALPHA] [TRACE] [>] to change the equals sign to a "greater than" sign.

5

Enter $Y2 > -2x+5$. (The App will shade any results that are greater than this function when the function is graphed.)