

Extensions to Do You See What I See

Set up a window so it matches the illustration at the right.

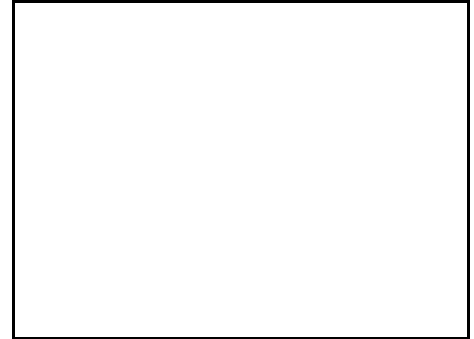
```
WINDOW
Xmin=-20
Xmax=20
ΔX=.4255319148...
Xscl=1
Ymin=-20
Ymax=20
Yscl=1
```

I. What will happen to the arrow if we double the x-coordinates?

The coordinates for the original arrow were placed in L1 and L2.
What do the x-coordinates describe about the position of the arrow?

What do you think will happen if we double the values of the x-coordinates?

Set up a list $L3 = 2 * L1$. Set up a second plot to graph $L3$ vs. $L2$.
Make a sketch of the picture.

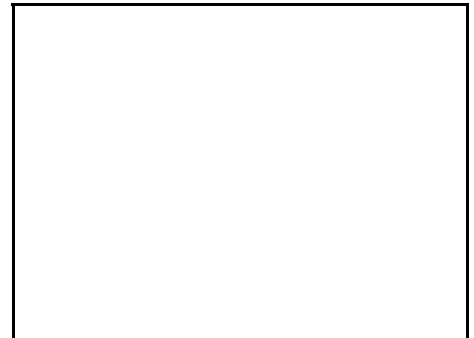


II. What will happen to the arrow if we double the y-coordinates?

The coordinates for the original arrow were placed in L1 and L2.
What do the y-coordinates describe about the position of the arrow?

What do you think will happen if we double the values of the y-coordinates?

Set up a list $L4 = 2 * L2$. Set up a second plot to graph $L1$ vs. $L4$.
Make a sketch of the picture.



III. What will happen to the arrow if we add 25 to the x-coordinates?

The coordinates for the original arrow were placed in L1 and L2.
What do you think will happen if we add 25 to each x-coordinate?

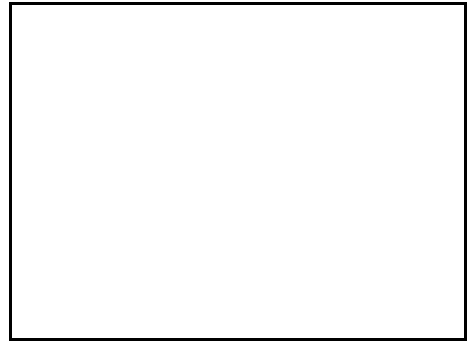
Set up a list $L3 = L1 + 25$. Set up a second plot to graph $L3$ vs. $L2$.
Make a sketch of the picture.



IV. Change the window as illustrated. What would happen to the arrow if we replace all the x-coordinates with their opposites?

The coordinates for the original arrow were placed in L1 and L2. What do you think will happen if replaced all the x-coordinates with their opposites?

Set up a list $L3 = -L1$. Set up a second plot to graph $L3$ vs. $L2$. Make a sketch of the picture.



- V. Create 2 new plots that will
- reflect the original arrow over the x-axis into the fourth quadrant
 - reflect the arrow in the fourth quadrant over the y-axis into the third quadrant.

Draw a sketch of our results.

