

Extensions to Do You See What I See

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

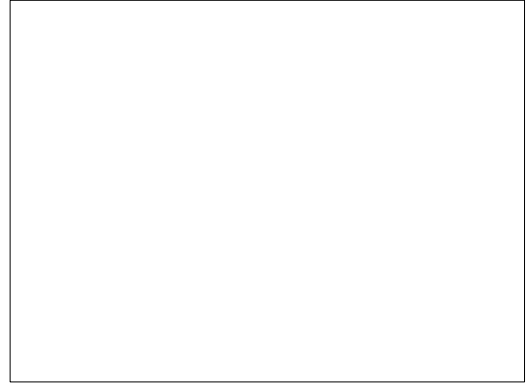
```
WINDOW
Xmin=0
Xmax=40
ΔX=.4255319148...
Xscl=0
Ymin=-5
Ymax=30
Yscl=0
```

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

The coordinates for the original tree were placed in L1 and L2.

What do the x-coordinates describe about the position of the tree?

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



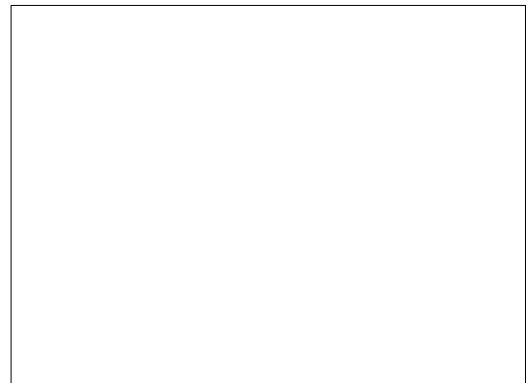
Set up a list $L3 = 2 * L1$. Set up a second plot to graph $L3$ vs. $L2$. Make a sketch of the picture.

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

The coordinates for the original tree were placed in L1 and L2.

What do the y-coordinates describe about the position of the tree?

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



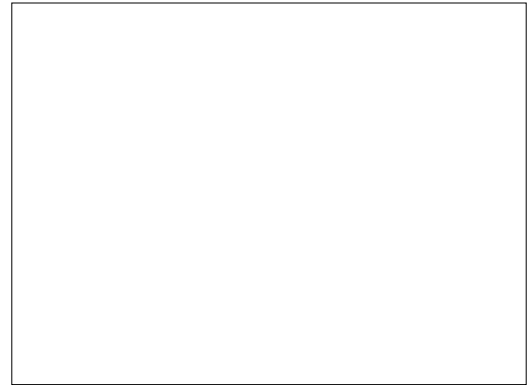
Set up a list $L4 = 2 * L2$. Set up a second plot to graph $L1$ vs. $L4$. Make a sketch of

the picture.

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

The coordinates for the original tree were placed in L1 and L2.

What do you think will happen if we add 25 to each x-coordinate?



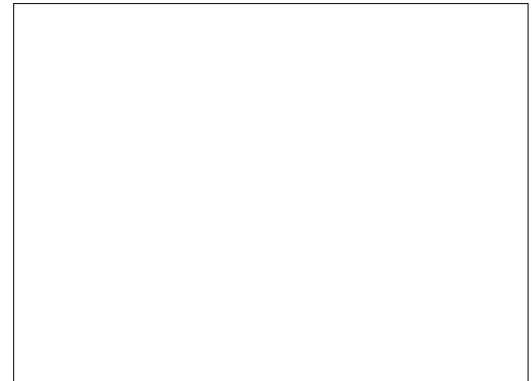
Set up a list L3= L1 + 25. Set up a second plot to graph L3 vs. L2. Make a sketch of the picture.

```
WINDOW
Xmin=-20
Xmax=20
ΔX=.4255319148...
Xscl=0
Ymin=-20
Ymax=20
Yscl=0
```

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

The coordinates for the original tree 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 tree over the x-axis into the fourth quadrant

- reflect the tree in the fourth quadrant over the y-axis into the third quadrant.

Draw a sketch of our results.

