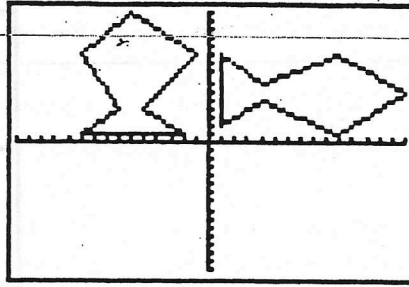


## ROTATIONS

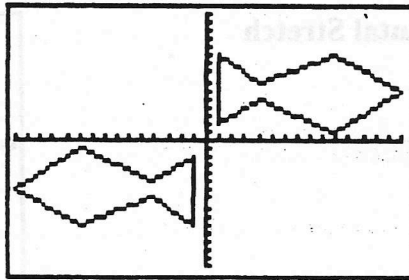
1. Rotate the figure  $90^\circ$  counter-clockwise

$(-y, x)$



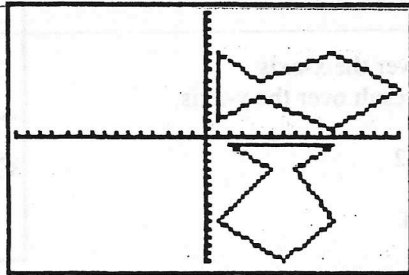
2. Rotate the figure  $180^\circ$  counter-clockwise

$(-x, -y)$



3. Rotate the figure  $270^\circ$  counter-clockwise

$(y, -x)$



## STRETCH/SHRINK

### Create a Vertical Stretch

Keep your original x coordinates

Multiply the original y coordinates by a selected factor.

$(x, 2y)$

L2	L3	L4	4
2	1	4	
5	4	10	
1	10	2	
6	15	12	
10	10	20	
7	4	14	
10	1	20	
L4(1)=4			