



# GRAVOGRAPH

## NEW HERMES

### BASIC SHAPE EDITING

A. First set up a new page in Corel Draw.

1. Left click on the file menu
2. Then left click on new

B. Basic Shapes

1. The rectangle tool

a. Left click on the Rectangle tool



b. Move the rectangle tool mouse cursor into the page area



into the

c. While holding the left mouse button drag the mouse down and to the right

d. You will see a rectangle start to form

e. When satisfied with the size, let go of the left mouse button

f. Now change the size to an exact one

g. Left click in the width box on the property bar and change that to 3


h. Hit the Tab key to go to the height field and type in 1.5

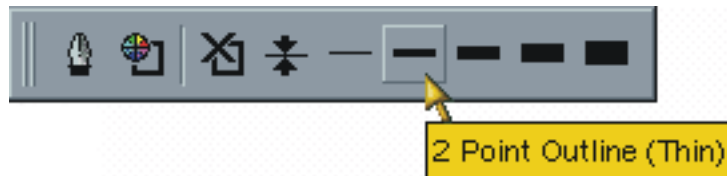
i. Hit RETURN



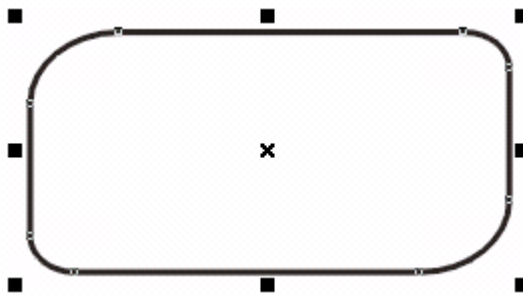
- j. Now change the corners so they are rounded
- k. Left click on the up arrow in the one of the corner roundness boxes until the value reaches 30  
 You will see that as you change one number, all the numbers change at the same time. This is because the corner roundness is locked for all corners. Lets change that.
- l. Left click on the lock and you will see the lock open
- m. Now left click on the upper left box up arrow until it reaches 60
- n. Then click on the lower right box up arrow until it reaches 60



- o. Finally, change the line weight.
- p. Left click on the Outline tool flyout (that's the small arrow next to the tool) 
- q. Next left click on the 2 point outline as seen below



Your Rectangle should look like this:



2. The Ellipse Tool

a. Left click on the Ellipse tool



b. Move the Ellipse tool mouse cursor  
area



into the page

c. While holding the left mouse button drag the mouse down and to the right

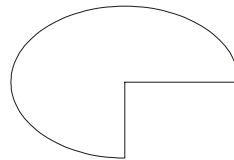
d. You will see an ellipse start to form

e. When satisfied with the size, let go of the left mouse button

f. Now change the size to 3inch wide by 2inch tall using the steps 1-g to 1-i

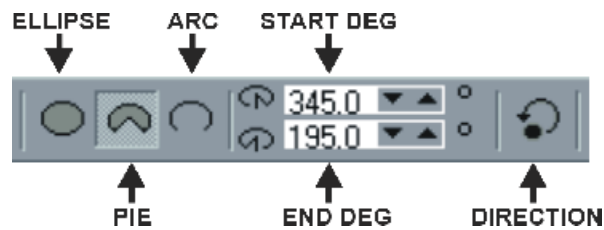
g. Now lets make it into an ellipse with a pie slice out of it

h. Left click on the Pie tool and you will see the numbers in the starting and ending degrees change and the ellipse will appear as if a slice was taken out of it, as seen below.



i. Change the start degree to 345 and the end degree to 195

Remember to TAB to the next field and hit ENTER when finished.



j. Now change the direction of the PIE. Left click on direction

You will see that the open portion has turned into the slice.

k. Now turn the slice into an ARC by left clicking the ARC tool.

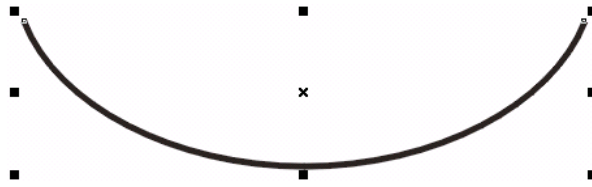
l. Finally, change the line weight.

m. Left click on the Outline tool flyout




and left click on 2

You Ellipse object should look like this:

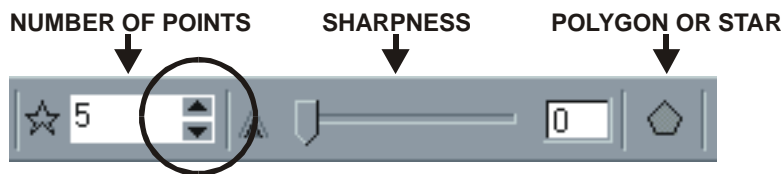



3. The Polygon Tool

a. Left click on the Polygon tool 

Lets set the number of sides for our polygon

b. Click the number of points arrow up until the number reaches 8



c. Move the Polygon tool mouse cursor  into the page

d. While holding the left mouse button drag the mouse down and to the right

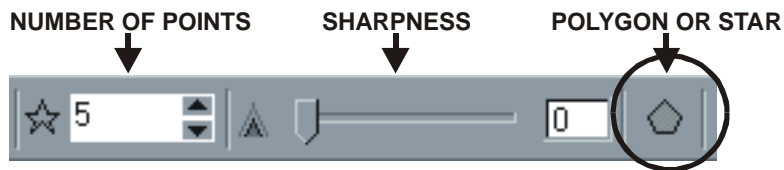
e. You will see an 8-sided polygon start to form

f. When satisfied with the size, let go of the left mouse button

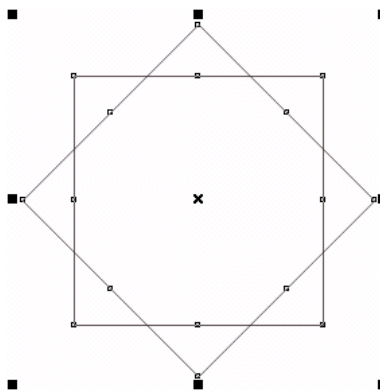
g. Now change the size to 2inch wide by 2inch tall as described earlier.

Now change it to an intersecting star.



h. Left click on the polygon or star tool

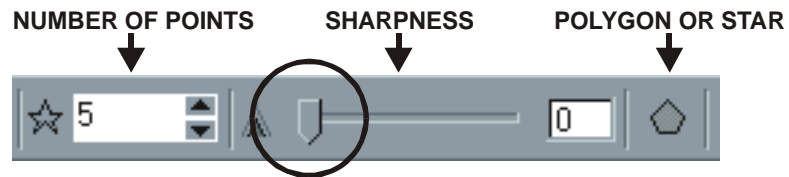




Your polygon object should look like this:



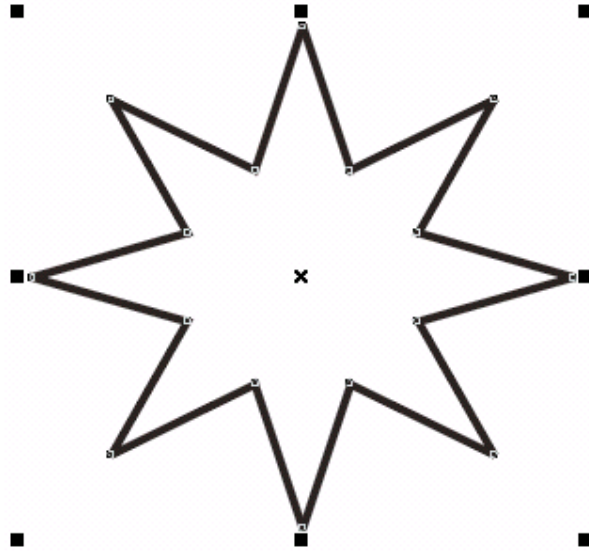
Now lets make a non-intersecting star

- i. Left click on the pick tool 
- j. Left click on a blank area of the page to insure that nothing is selected
- k. Left click on the polygon tool 
- l. Increase the number of points to 8 as we did above
- m. Move the sharpness slider to the right till the number next to it reads somewhere around 50



- n. Now bring your Polygon Tool mouse cursor  over a blank area of the page
- o. Left click and hold
- p. Drag the mouse down and to the right till you are satisfied with the non-intersecting star.
- q. Release the left mouse button
- r. In the property bar, change the width and height to 2 x 2 as demonstrated previously.
- s. Finally, change the line weight.
- t. Left click on the Outline tool  flyout and left click on 2 point outline.

Your Polygon Object should look like this:



4. The Spiral Tool

- a. Left click the flyout arrow on the polygon tool

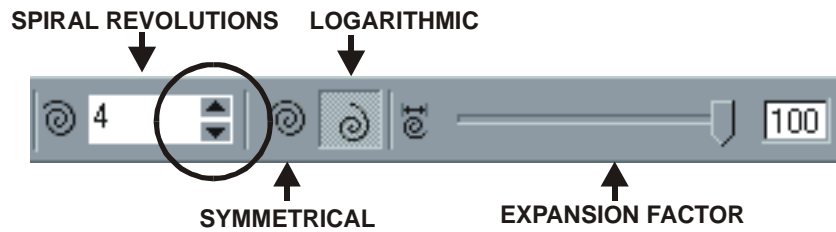


You will see the flyout open

- b. Left click on the Spiral Tool



- c. Left click on the up arrow for spiral revolution tell it reaches 10



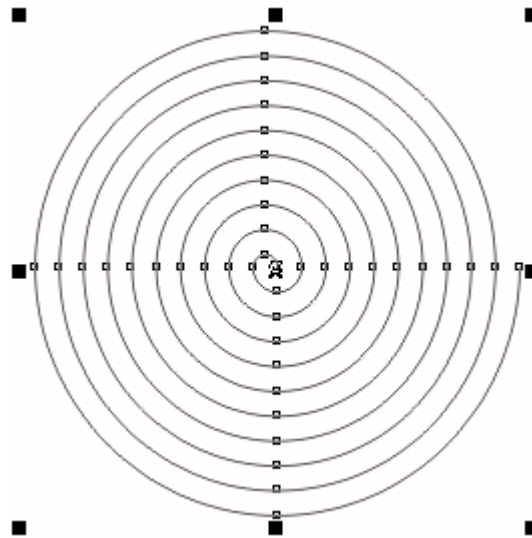
- d. Move the Spiral Tool mouse cursor area



into the page

- e. While holding the left mouse button, drag the mouse down and to the right
- f. Your spiral start to form
- g. When satisfied with the size, let go of the left mouse button
- h. Change the size as described earlier to 3inch by 3inch

Your Spiral should look something like this:



Note: You could then use this Spiral path to fit some text to it as described in the module : ADVANCED TEXT EDITING

5. The Graph Paper Tool

- i. Left click the flyout arrow on the polygon tool



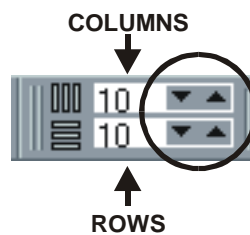
You will see the flyout open

- j. Left click on the Graph Paper Tool



- k. Left click on the up arrow for the graph paper columns until it reaches 10

- l. Left click on the up arrow for the graph paper rows until it reaches 10



- m. Move the Graph paper Tool mouse cursor



into the

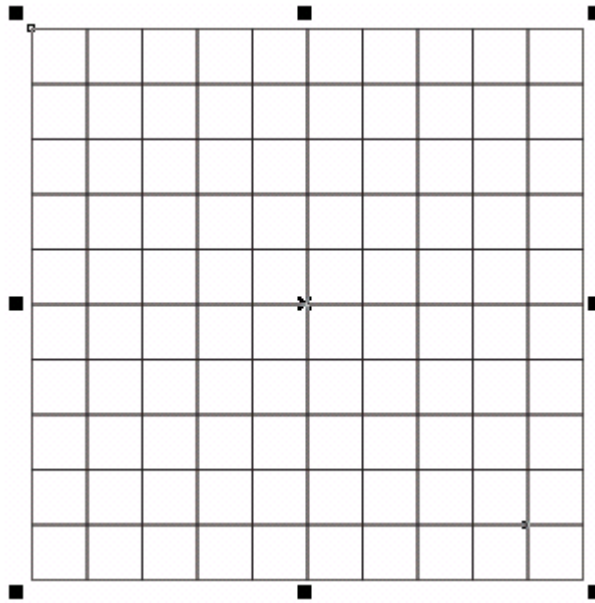
Here is a tip to make a perfectly square graph.

- n. Press and hold the left CTRL key
- n. While holding the left CTRL key Left click and hold the left mouse button
- o. Drag the mouse down and to the right

You will see your graph start to form. You will see that it will stay perfectly square no matter how you drag your mouse.

- p. When satisfied with the size let go of the left mouse button




Your Graph Paper should look something like this:

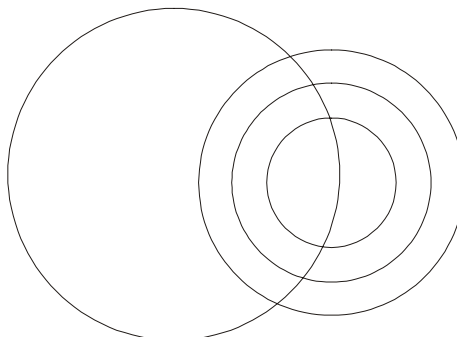



### C. Using Combine & Group

#### 1. Combine

First, set things up so you can understand what the combine tool does to shapes

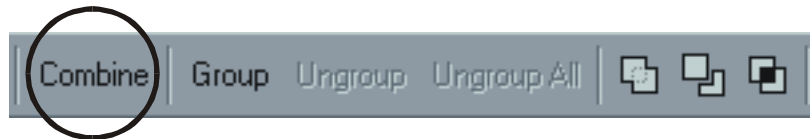
- a. Left click on the Ellipse tool   
With the Ellipse Tool mouse cursor  make a perfect circle
- b. Hold down the left CTRL and drag you mouse down and to the left as we did with the perfect graph previously.
- c. Now using the method above, make three more each smaller than the one before.
- d. Left click on the pick tool 
- e. Move the circles close to the example below:



Selecting hollow objects with the pick tool  is easier when you left click with the tip of the mouse cursor touching outline

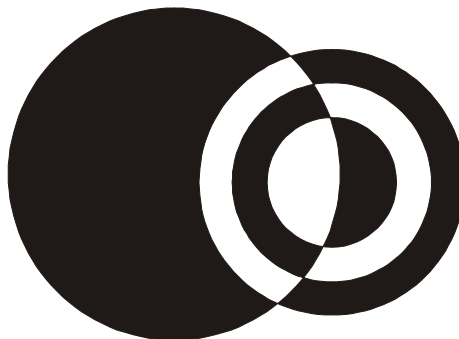


- f. Now using the pick tool, drag a selection box around all of the circles  
You will see the combine/group tool bar appear

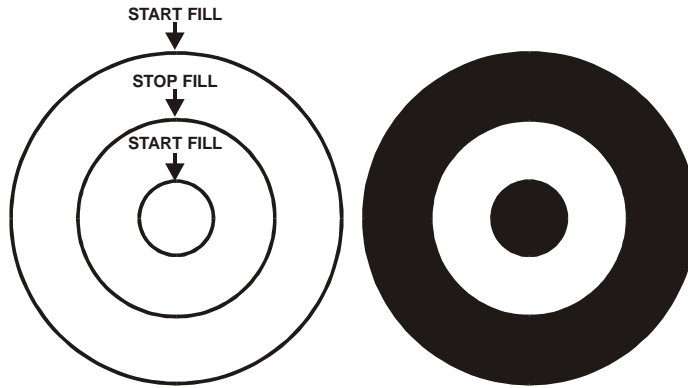


- g. Left click on the combine button
- h. Left click on the BLACK color swatch in the color palette

Your graphic should look like the following:




**HOW IT WORKS:** When Corel Draw sees combined objects, it starts filling from the most outside path in. When it finds the next most inner path, it stops filling until it gets to an even smaller one and starts again. It just happens so fast, you can't see it.




2. Grouping

Grouping is used to stick text and objects together.


a. Using the steps previously, make three perfect circles each smaller than the one before

b. Then left click on the Text Tool 

c. Select Times New Roman as the font

d. Left click with the Text Tool mouse cursor  in the page area

e. Type in all upper case GROUPING WITH COREL!

f. Now left click on the Pick Tool 

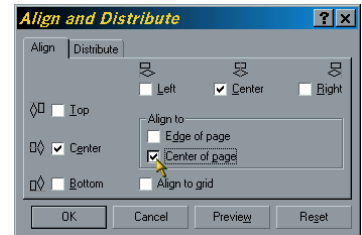
g. Drag a selection box around everything you just made to select it all

h. Left click on the Arrange menu at the top of the screen

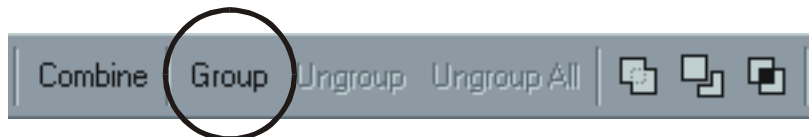
i. In the Arrange menu, left click on Align and Distribute

j. Left click in the Center of Page box

k. Left click OK to accept the change



l. Now on the combine/group tool bar left click Group



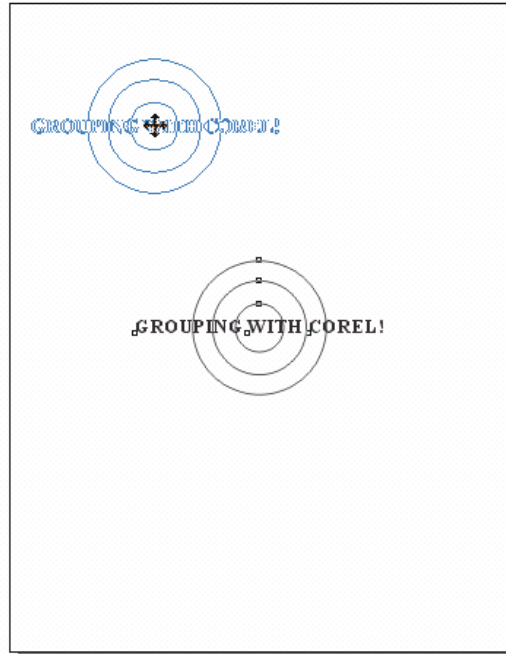
m. Left click on a blank area to select nothing

n. Left click on any of the objects you just made

You will see that all the objects were selected when you select just one.

Now lets make a copy of our group

- o. Left Click and hold the mouse on the “X” in the middle of the grouped objects
- p. While holding the left mouse button move the mouse cursor up and to the right until you see a copy move away from our original as seen below.



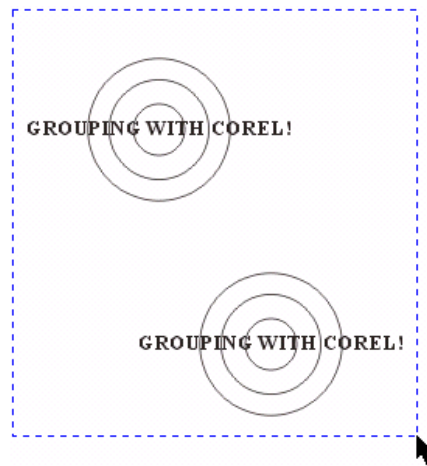
- q. While still holding the left mouse button, click the right mouse button.
- r. Now let go of both buttons

You should see a copy where you right clicked

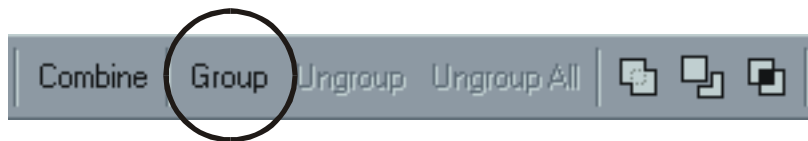


Now lets group these two

- s. Drag a selection box around both groups.



- t. Left click on group in the combine/group tool bar



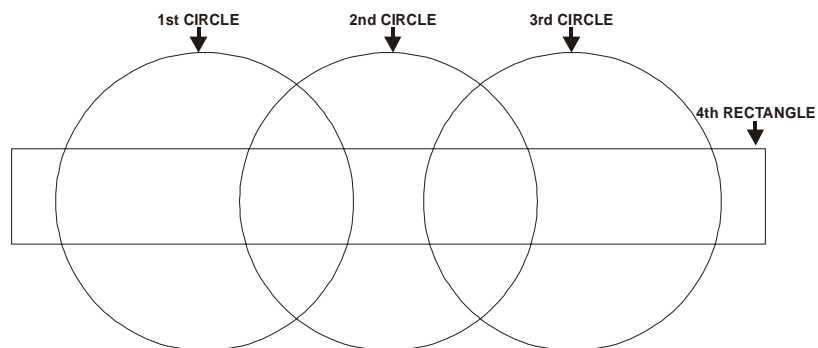
If you start moving one group, the other will follow until you un-group them.


#### D. Layering

Layering is a way to push and pull objects in front of and behind other objects

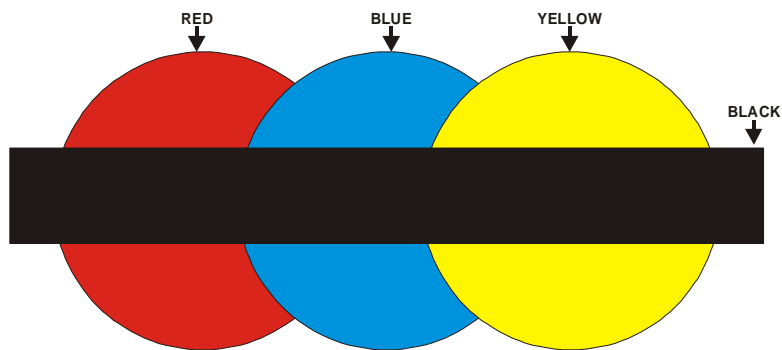
- 1. Setting up

- a. Make three perfect circles about the same size, overlapping with a rectangle over top as seen below



- b. Now fill them with different colors.
- c. Left click with the pick tool  on the edge of the leftmost circle and left click RED
- d. Left click on the edge of the next one to the right and left click BLUE
- e. Left click on the edge of the rightmost circle and left click YELLOW
- f. Left click on the rectangle and left click BLACK

Our screen should look like this:

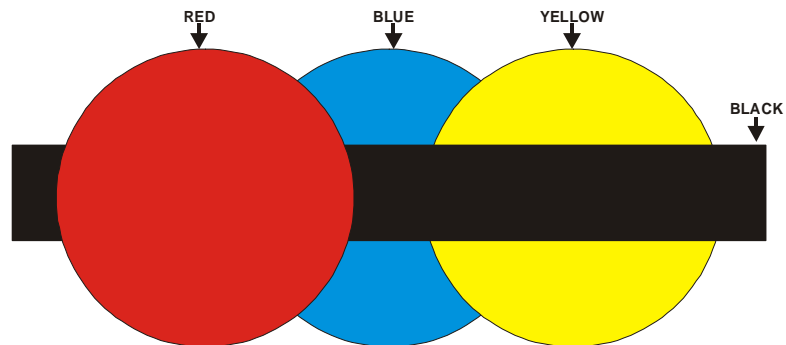


You see that the objects are overlapping each other according to the order they were made.

Now, move the red circle to the front

- g. Left click on the red circle
- h. Hold down the left SHIFT key and with the other hand tap the PAGE UP key

Now the red circle is in front of the other circles.

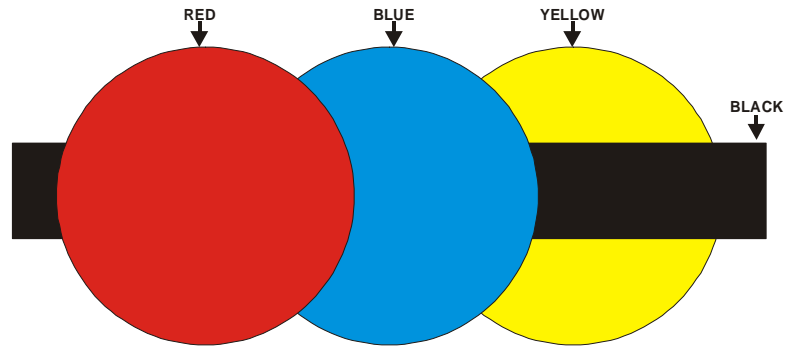


Now move the blue circle just in front of the rectangle but not the red circle

- i. Left click on the blue circle
- j. Hold down on the left CTRL key and with the other hand tap the PAGE UP key twice

Now the blue circle is in front of the rectangle but behind the red circle

Yours should look like below:

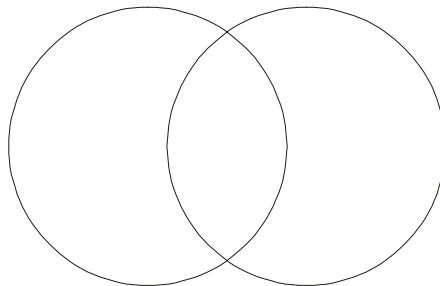


Using the same steps but with the PAGE DOWN you can move things back

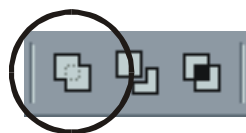
## E. Welding, Trimming & Intersecting

### 1. Welding

- a. Make two perfect circles as below

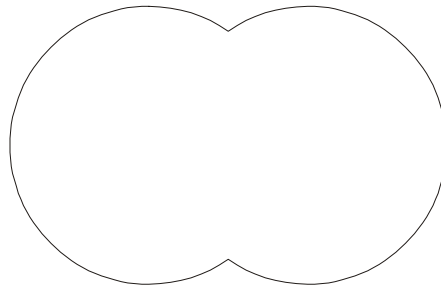


- b. Left click on the edge of either one
  - c. Holding the left SHIFT key, left click on the other circle to select both
- Now the Weld/Trim/Intersect Tool bar will appear in the property bar



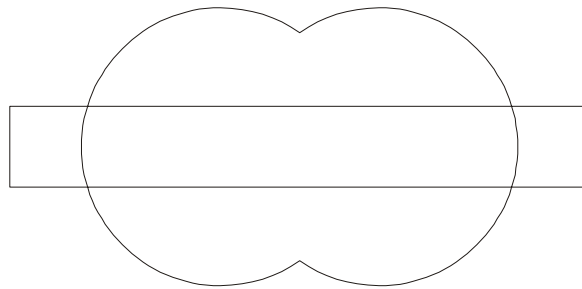
- d. Left Click on Weld

Your circles should be joined as seen below




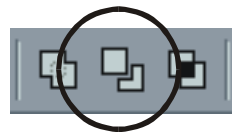
2. Trim

- a. Make a horizontal rectangle on top of the welded circles as below



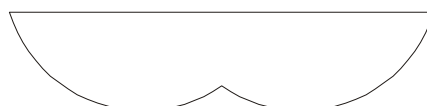
Select the object you want to trim with first

- b. With the pick tool  left click on the edge of the rectangle
- Then select the object you want to trim
- c. Holding the SHIFT key, left click on the welded circles
- d. Left click on the on the Trim Tool in the Weld/Trim/Intersect tool bar



- e. Left click on a blank area so nothing is selected
- f. Left click on the rectangle
- g. Push the DEL key on your keyboard to delete the rectangle

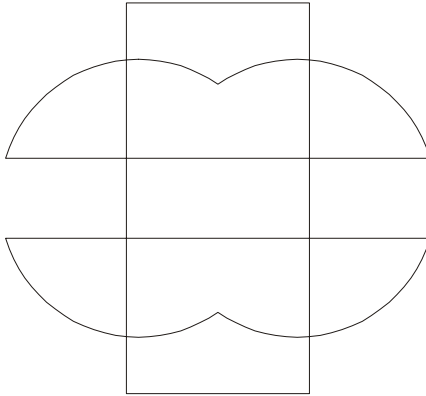
Your trimmed object should look like the following:



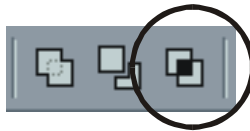
3. Intersect

To make two objects intersect

- a. Make a vertical rectangle on the welded and trimmed circles as below

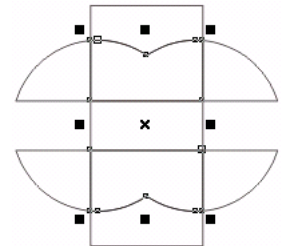


- b. With the pick tool left click on the edge of the welded/trimmed circles to select it  
c. Holding the SHIFT key, Left click on the edge of the rectangle  
d. Left click on the Intersect Toll in the Weld/Trim/Intersect tool bar



You should see the intersection of the two objects selected

- e. Left click on the rectangle and delete it with the DEL key  
f. Left click on the welded/trimmed circles and delete it with the DEL key



Your intersection should look like below:

