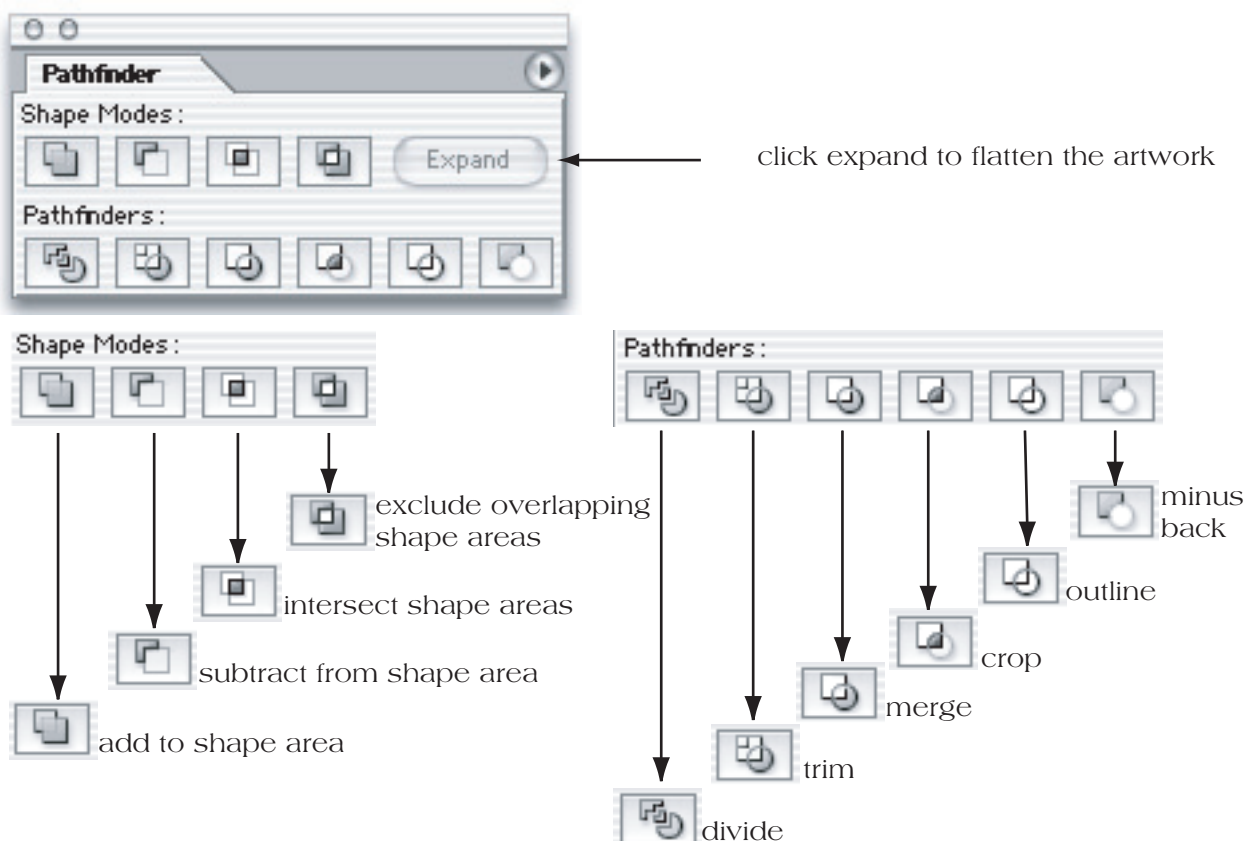


## Illustrator - pathfinders

The pathfinders are among the most powerful design tool in Illustrator as they allow you to combine several shapes in different ways, combining, intersecting and dividing them.

Most Pathfinder commands create compound paths. A compound path is a group of two or more paths that are painted so that overlapping paths can appear transparent. Objects created by pathfinder commands are assigned the same paint style as the top object in the current layer's stack.


*Note:* Applying Pathfinder commands to complex selections, such as blends, may require large amounts of RAM. Be careful not to push your computer over the limit!

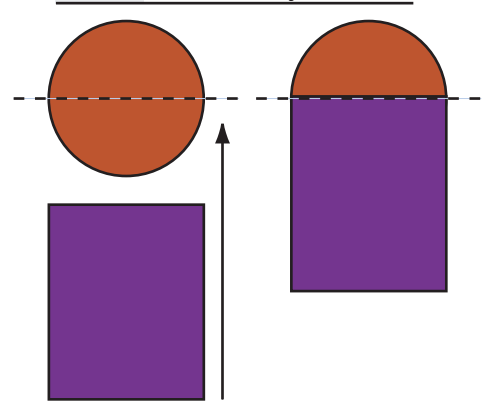


To set Pathfinder options:

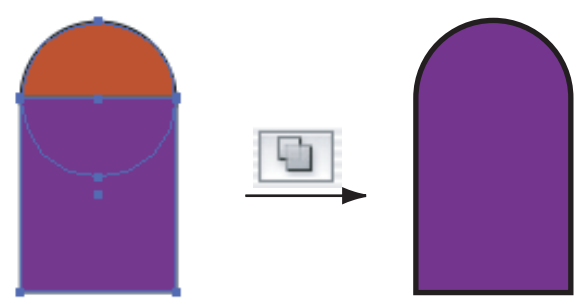
- choose window › pathfinder.
- choose pathfinder options from the pathfinder palette menu.
- specify any of the following pathfinder options, and then click 'ok':
  - type a precision value in the Precision text box to affect how precisely the pathfinder filters calculate an object's path. The more precise the calculation, the more accurate the drawing and the more time is required to generate the resulting path.
  - select Remove Redundant Points to remove redundant points as you click a Pathfinder button.
  - select Divide and Outline Will Remove Unpainted Artwork to delete any unfilled objects in the selected artwork as you click the Divide or Outline button.
  - to reset all options to their default settings, click Defaults.

# using pathfinders

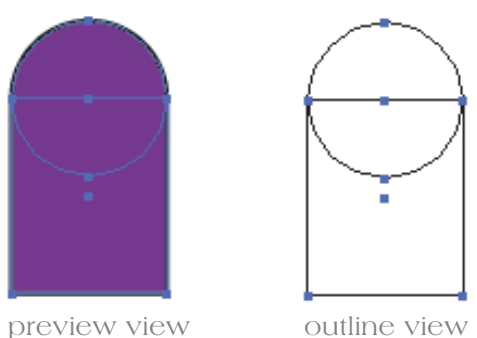
 add to shape area



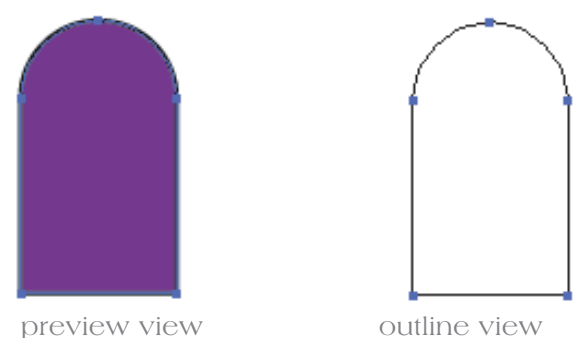
step 1  
create a circle and a rectangle and line them up as shown along the dotted line



step 2  
select both shapes and click the pathfinder button to merge both shapes into one



preview view      outline view  
shapes combined / merged



 shapes combined / merged, then expanded

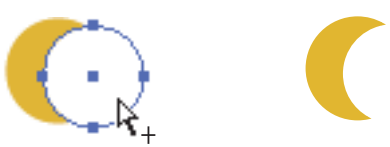
 subtract from shape area



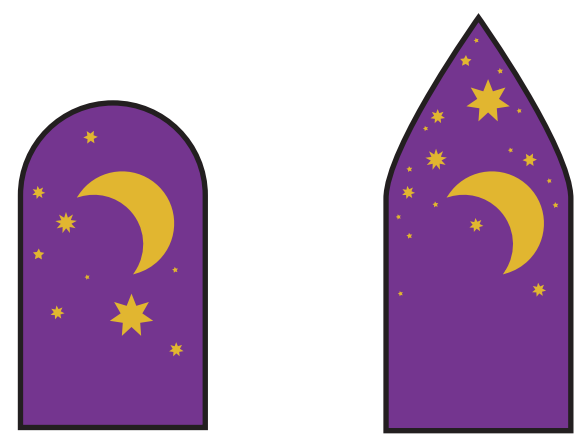
step 1  
create two circles of the same size and align as shown



step 2  
select both circles and click the pathfinder button to subtract the top circle area from the bottom circle



step 3  
if necessary, use the group selection tool to reposition the subtracted shape.  
!! always deselect first - then click on the subtracted area, hold and drag to reposition.  
!! Expanding will make any readjustments as this impossible.



## using pathfinders

### intersect shape areas



step 1  
create a line of ornamental elements, if based on a font as shown here - you need to create outlines and merge the different sections together and expand to create one solid shape



step 2  
create a rectangle of any colour and align it on top of the graphic



step 3  
select both - and click on the pathfinder button to intersect the shape areas



step 4  
expand - if necessary. Before expanding you can still adjust the intersected area by selecting the rectangle with the group selection tool.



### exclude overlapping shape areas

## compound path



step 1  
create 2 squares, one about half the size of the other



step 2  
position the shapes as shown here



step 3  
select both - and click on the pathfinder button to exclude overlapping areas



note  
in most cases, expanding would not be advised as flexibility is maintained

this technique - also used with the compound path - is very popular for logo design and advertising graphics. Overlapped areas become effectively a 'hole' in the newly created shape, letting through any underlying images or graphics.

In fonts, the letters q,r,o,p,a,d,g and b are created using compound paths.



step 1  
word typed and outlines created



step 2  
line as graphic element, created with calligraphic brush and outlined, duplicated



step 3  
select both 'logo' and line shape and click on the pathfinder button



step 4  
align the duplicate line shape with the text and position behind.

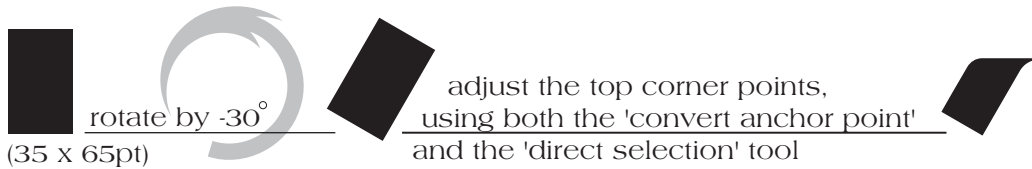


# creating the recycling symbol - using compound path



- create a perfect circle with a green fill: 180 x 180 pt  
REMEMBER to use your TRANSFORM palette for precision !!!
- create one of the arrows  then duplicate it twice and rotate the copies to form the triangle of the logo

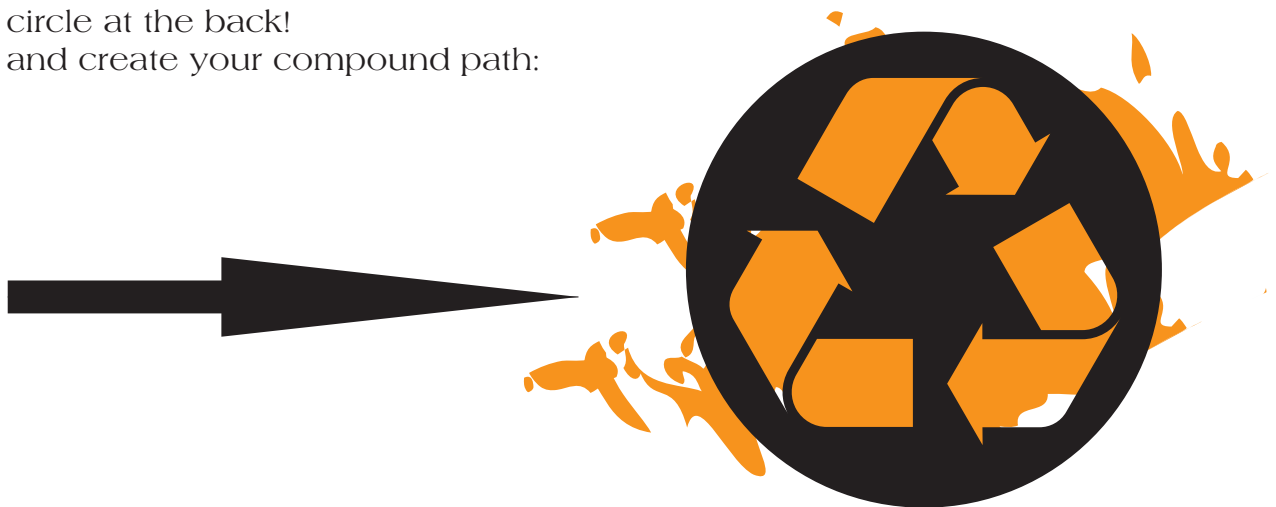
a few tips: ● the arrow is made out of 2 parts  
● create them both by starting with a rectangle



- once lined up and finished with - create 2 copies (grouping might help) and align them along an even sided triangle



- combine your circle and your arrow triangle, make sure to leave the circle at the back!  
and create your compound path:



- now check your compound path by adding a differently coloured background behind your recycle symbol