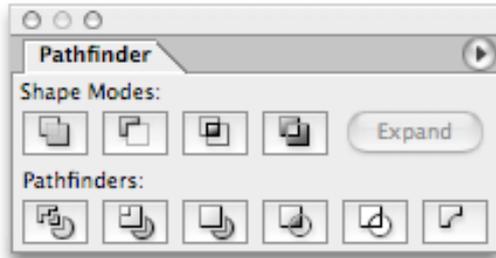If you aren't familiar with Illustrator's extremely handy "Pathfinder" palette, you might sit down for a few moments to play with it, because it is a true time saver, and an excellent tool for manipulating paths. First, of all let me say that "Pathfinder" is a misleading name for this palette. It doesn't actually "find" paths. It makes it easy to combine paths, divide objects, subtract shapes, etc.
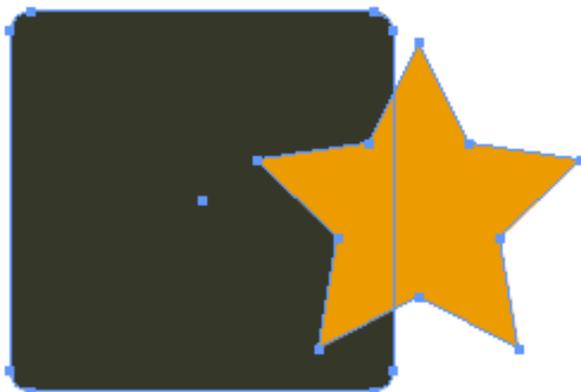

Above is a screenshot of the pathfinder palette. You'll notice 11 buttons right away. In this tutorial, I will be explaining the 5 buttons on the top row, and the differences between them. The bottom 6 buttons are a little more advanced, but I'll give you some pointers about those at the end of the tutorial.

To follow along: Open a new Illustrator document and create any 2 shapes you like. I used a rounded rectangle and a star. I will use the same 2 shapes in each example.
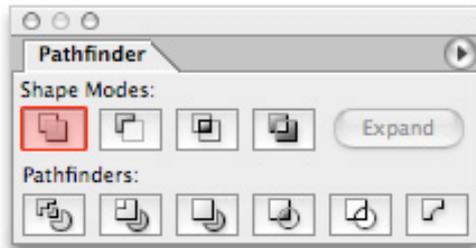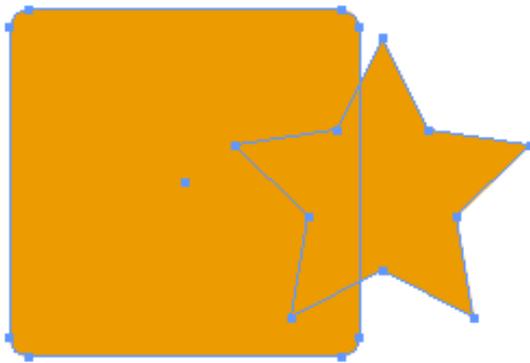

1. Combining Shapes

Here we will be combining the paths of 2 shapes, to create 1 single path out of the 2 with the click of a button. First overlap your 2 shapes similar to this:
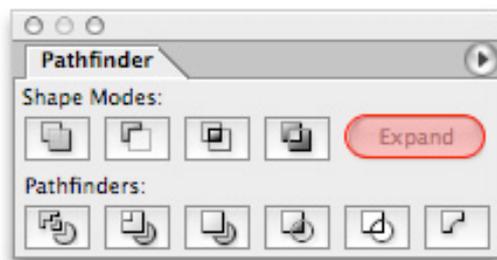
Now, with BOTH shapes selected, click the "Add to Shape Area" button in the pathfinder:
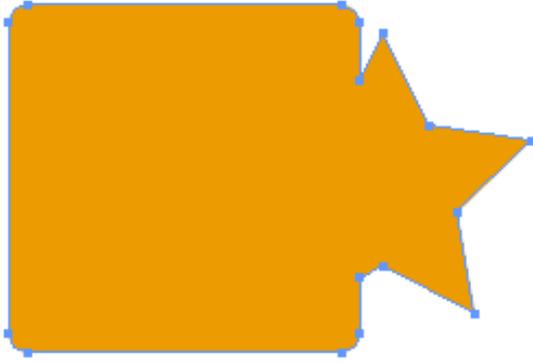

Now you should see something like below. Notice that the pathfinder changes the fill colour of both shapes to the colour of the top shape.

Essentially, all pathfinder did was it made a compound path out of your 2 shapes, and made them have the same fill colour. Now hit the "Expand" button, Pathfinder actually creates a single path to define the compound shape. (Note, if you don't hit the Expand button immediately after the Add to Shape Area button, it will get grayed out, so you have to do it right after)
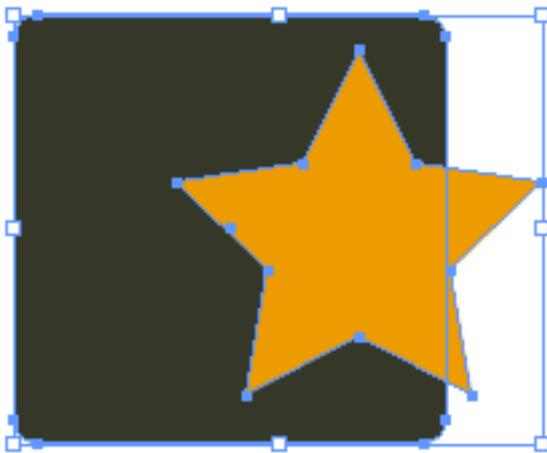

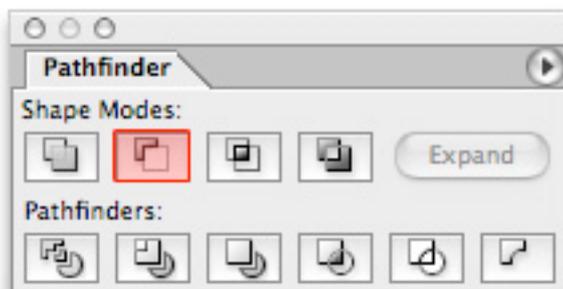After clicking Expand, you should see a single path:
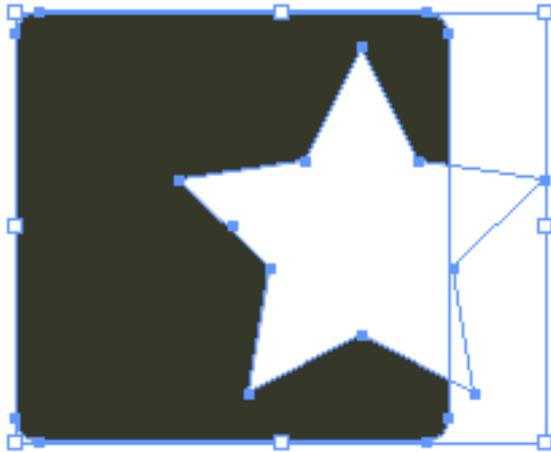
2. Subtracting Shapes

This is a neat one because you can basically use any shape as an eraser or "cookie cutter" so to speak. Overlap your 2 shapes similar to this:
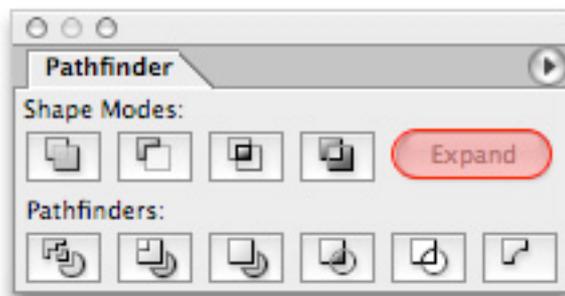

Now, with BOTH shapes selected, click the "Subtract from Shape Area" button in the Pathfinder.
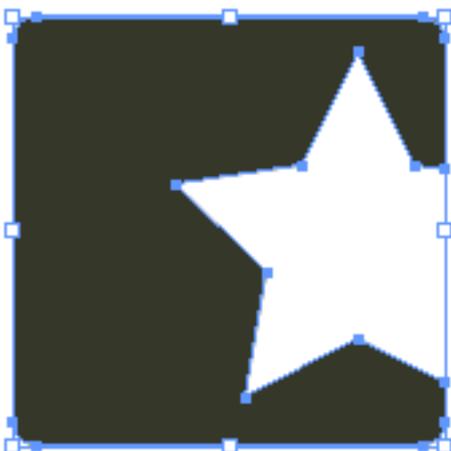

What this does is Illustrator subtracts the top shape from the bottom shape. The shape doing the subtracting must be on top.

You'll probably notice that the path from the top shape is still there, so immediately click the "Expand" button in pathfinder to get rid of the extra paths left behind from your cookie cutter.
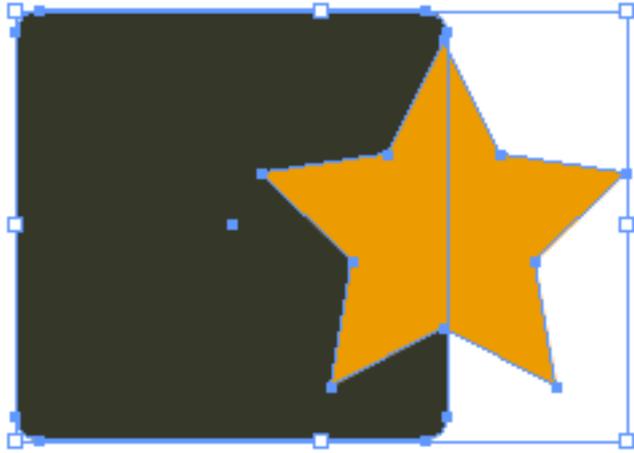

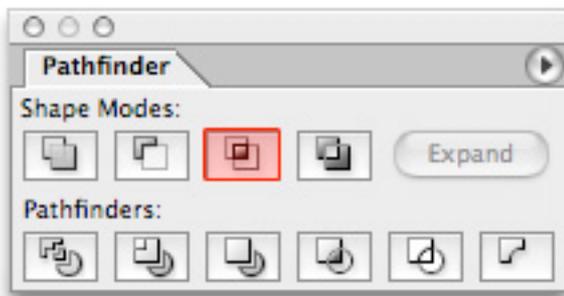And you should now have a single clean path to work with:
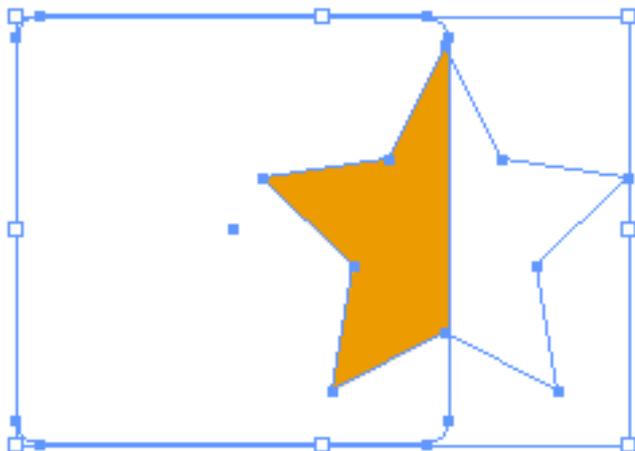

3. Intersecting Shapes

The next pathfinder feature is the ability to intersect shapes. What this means is overlapping 2 shapes, and getting rid of anything that ISN"T overlapped. So to start, overlap your 2 shapes similar to below.
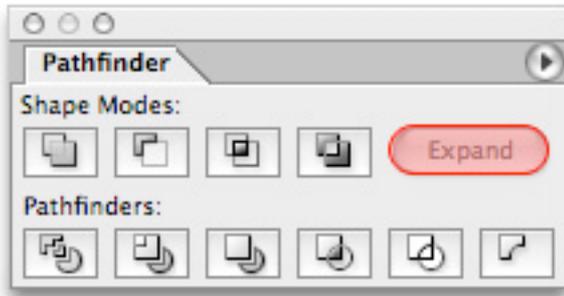
Now, with BOTH shapes selected, click the "Intersect Shape Areas" button in the pathfinder.
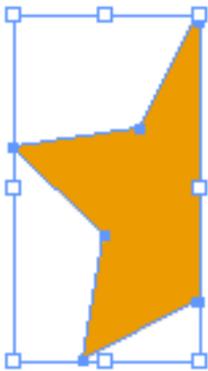

Illustrator gets rid of everything except the parts of the 2 shapes that were overlapped:

You notice the paths from the original 2 shapes still there, so immediately click the "Expand" button in the Pathfinder to make a single path around your overlapped shape, while getting rid of the 2 original paths.
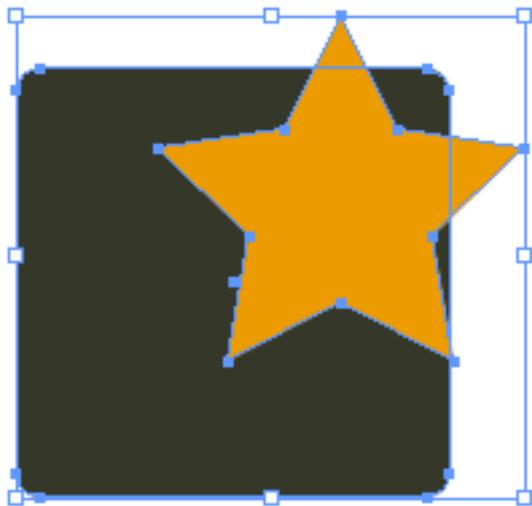
And you now have a single, clean path made out of the overlapping section of the original 2:
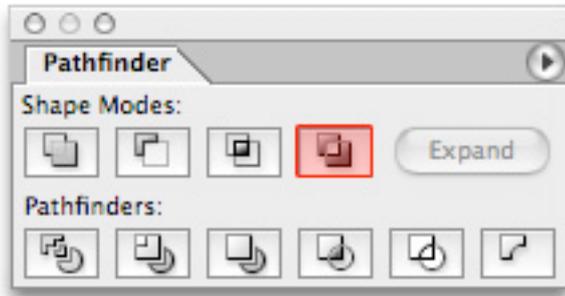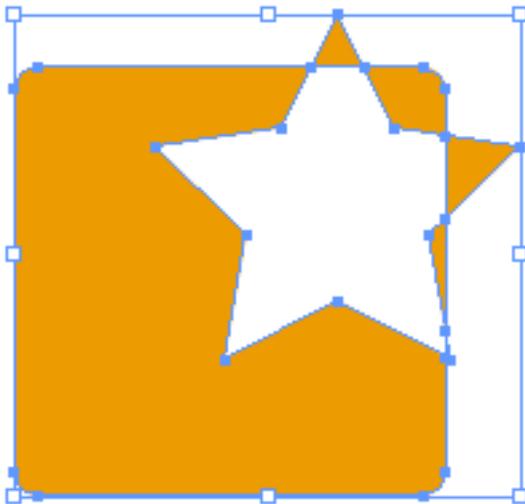

4. Excluding Overlapped Shapes

This Pathfinder feature is the exact opposite of #3. Instead of getting rid of everything that isn't overlapped, it gets rid of everything that IS. Overlap your 2 shapes, similar to below.

Now, with BOTH shapes selected, click on the "Exclude Overlapping Shape Areas" button in the pathfinder.

Illustrator excludes any shape areas that were overlapping at all, like this:

It isn't the case here, but if your shapes are complex and you see extra paths in the excluded areas, click the Expand button to get rid of the paths left behind.

Tips for exploring this on your own:

I didn't cover the bottom row of buttons in the Pathfinder palette because it would get extremely confusing. Essentially the bottom row buttons perform a number of combinations of the top buttons. For example the "Divide" button will divide the bottom shape with the top shape, AND the top shape with the bottom shape all at the same time.

I encourage you to explore the Pathfinder for a few minutes on your own. It just may make your life a little "bitt" easier :)