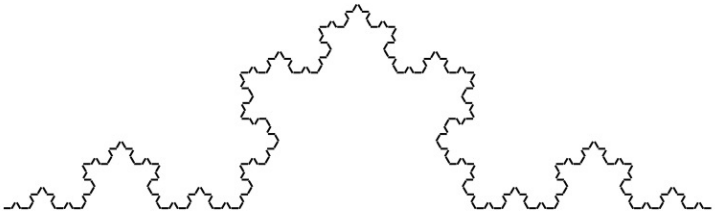
The problem bank has a problem with a somewhat complex approach to making Koch fractal curves. In this problem we are using a simpler approach that makes curves that look a little less good. You MUST USE THE APPROACH IN THIS PROBLEM. If you have perhaps memorized the approach from the problem bank you should ignore it.

Using CUTOFF of 20 defined below, here are Koch fractals of different sizes:

(koch 20)

(koch 60)

(koch 180)



(koch 600)

Looking closely at the sized 60 example, you can see that it is formed out of 4 (koch 20) fractals of 1/3 the given size (60/3 = 20). Two of the smaller fractals are rotated by 60 and -60 degrees, and then all of them are placed beside each other, aligned to their bottom edges.

Similarly, the (koch 180) result is made of 4 (koch 60) results.

NOTE THAT:

- To make the ordinary lines you MUST call rectangle, with the line length as its first argument (width), and remaining arguments of LINE-THICKNESS, "solid" and LINE-COLOR.

- To combine the four images you MUST call beside/align with a first argument of "bottom" and then the four images as the remaining arguments.

Note that the approach we are using here doesn't make perfect Koch fractals. The ends of the lines don't quite meet each other. THAT IS OK AND THAT IS WHAT THE GRADER IS EXPECTING. For the midterm you MUST use the simple approach we are describing - you can do something that looks better after the midterm if you want.

As always, use the examples step of the recipe to be sure you understand how the images work first.