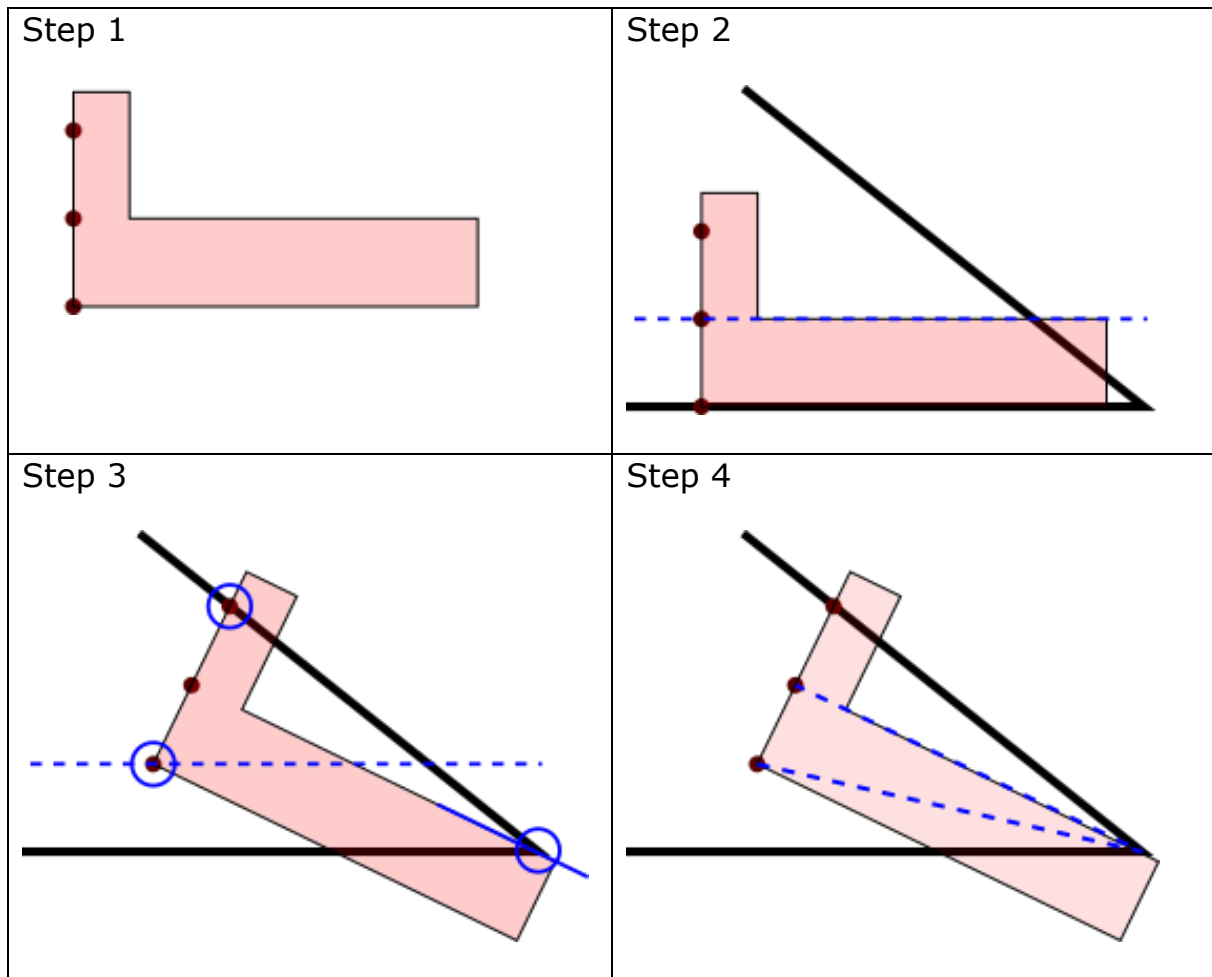A classical Greek problem was to find a way to trisect an angle using just a ruler and compass. However, this is impossible.

It is possible though, to trisect an angle using a carpenter's square, or an L shape. You can see this in the video at http://nrich.maths.org/726 , or by following the diagrams below.

Step 1

Step 2

Step 3

Step 4

Can you explain why this works?

Can you extend the idea to trisect an obtuse angle?