

onto one another under this rotation. Also,  
 the angles  $\angle OPS' = \angle OSP = 45^\circ$ , similarly for the  
 interior angles of other triangles. Hence the  
 chords  $PS', SR'$  and  $SR', R'Q'$  and  $R'Q', Q'P'$  and  $Q'P', PS'$   
 meet at right angles and hence form a square.  
 The inverse transformation  $t^{-1}$  is an affine  
 transformation and so preserves the property  
 of being parallel, and so the square  $P'Q'R'S'$   
 is mapped to a parallelogram.

10  
 20