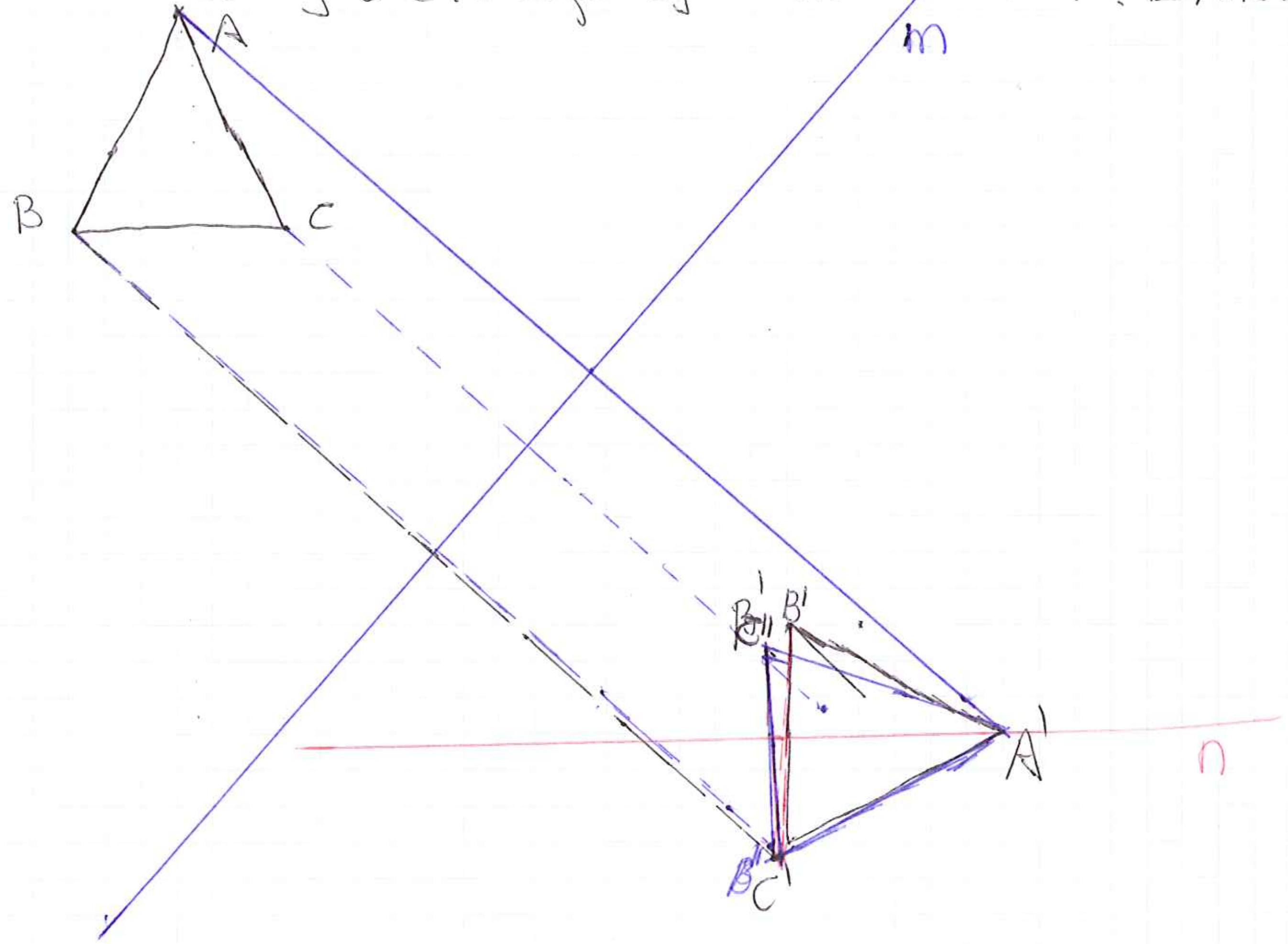
An isometry T is the product of at most three reflections.

We show here an example. We use that T is determined by the image of $\triangle ABC$ under T: $\triangle A'B'C'$



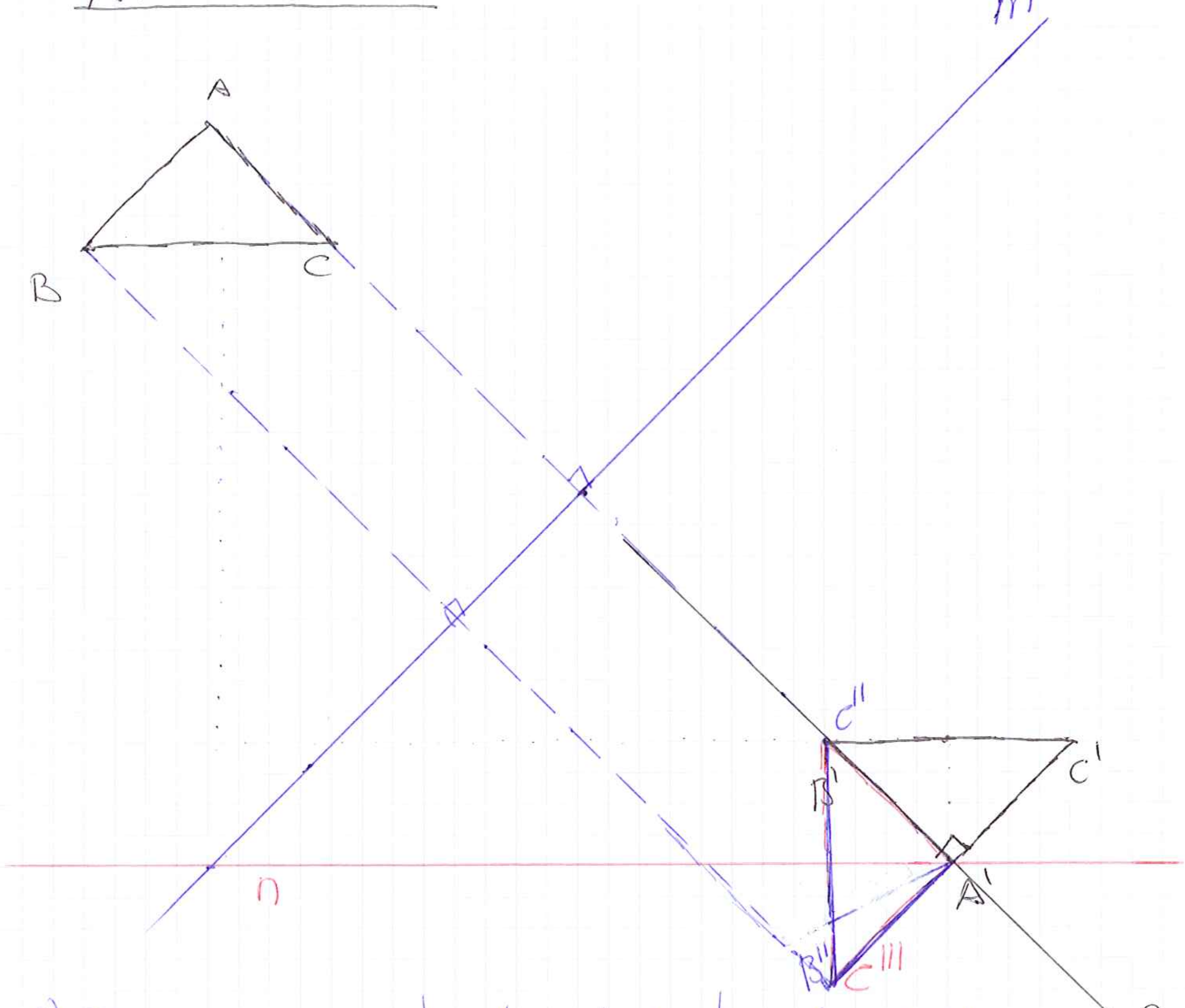
As $A \neq A'$ we consider R_m, where m is the perpendicular bisector of AA'. $R_m(\triangle ABC) = \triangle A'B''C''$

As $B'' \neq B'$ still, consider R_n, where n is the perpendicular bisector of $B''B'$. $R_n(\triangle A'B''C'') = \triangle A'B'C'''$

Observe that in this case $R_n(C'') = C'$ and

$$T = R_n R_m$$

Another case



i) R_m, m perpendicular bisector to AA'
$R_m(\triangle ABC) = \triangle A'B''C''$) Observe $B' \equiv C''$, why not??

ii) R_n, n perpendicular bisector to $B''B'$
$R_n(\triangle A'B''C'') = \triangle A'B'C'''$, where $C''' \equiv B''$

iii) R_p, p perpendicular bisector to $C'''C'$ (observe this is the line $B'A'$) C' is the reflected point of C''' in p (observe also that A' is the midpoint between C''' and C') so $R_p(\triangle A'B'C''') = \triangle A'B'C'$

And $R_p R_n R_m(\triangle ABC) = \triangle A'B'C' = T(\triangle ABC)$

$T = R_p R_n R_m$