



Let the last point of the square P.

Due to AA similarity $ABC \sim PVW \sim RVC$.

Also the ratio of similarity is $3:4:5$.

Since $VW = m$, $VP = \frac{3}{5}m$.

$RV + VP = m$, so $RV = \frac{2}{5}m$.

$RC = AC - AR = 4 - m$.

$RC : RV = 4:3$ so $(4 - m) : \frac{2}{5}m = 4:3$.

Solving the equation yields $m = \frac{60}{23}$.