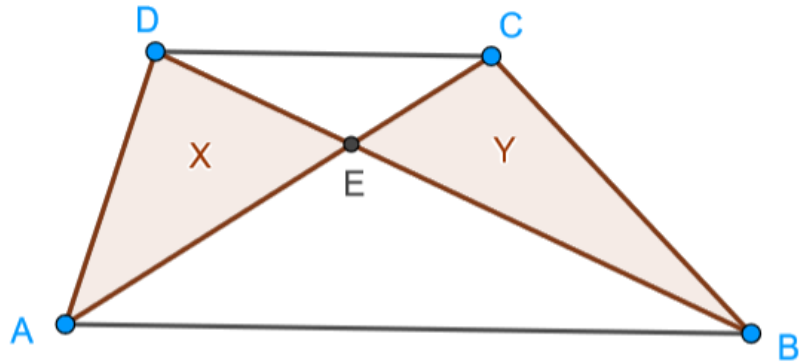


Triangles in a Trapezoid - Three

ABCD is a trapezoid.

Diagonals \overline{AC} and \overline{BD} intersect at point E.



Prove:

$Area(\triangle ADE)$ is the geometric mean of $Area(\triangle DCE)$ and $Area(\triangle BAE)$

Note: $Area(\triangle ADE) = Area(\triangle BCE)$,
so $Area(\triangle BCE)$ is also the geometric mean
of areas of the top and bottom triangles.