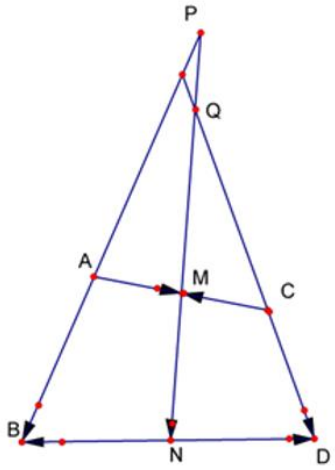
Example 11: As shown in Figure 1, the line segment $AB = CD$, M and N *are the midpoints of the line segments* AC and BD respectively . Line MN intersects AB at P *and* CD at Q *respectively* . Proof: ∠APM = ∠COM .



set $K = D + B - C$, $4\dfrac{\dfrac{A+C}{2} - \dfrac{D+B}{2}}{\dfrac{C-D}{A-B}} = \dfrac{\dfrac{K-A}{K-B}}{\dfrac{A-B}{A-K}}$

Explanation: This identity can lead to the geometric method: construct parallelogram DCBK, then MN is the median line of △CAK, BA=BK is equivalent to ∠APM = ∠COM .