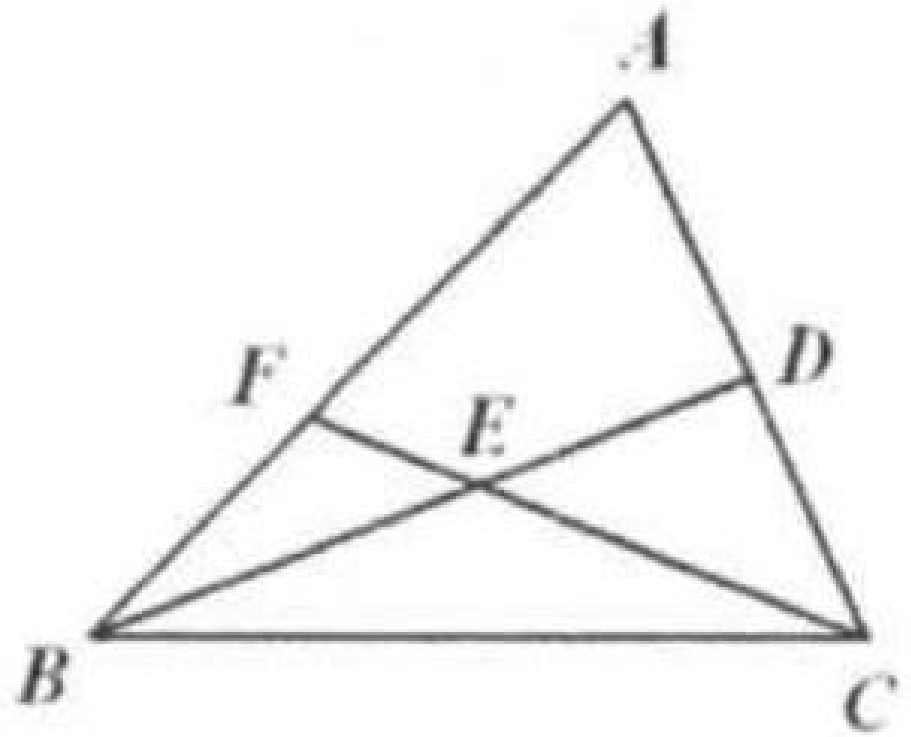
Example 1

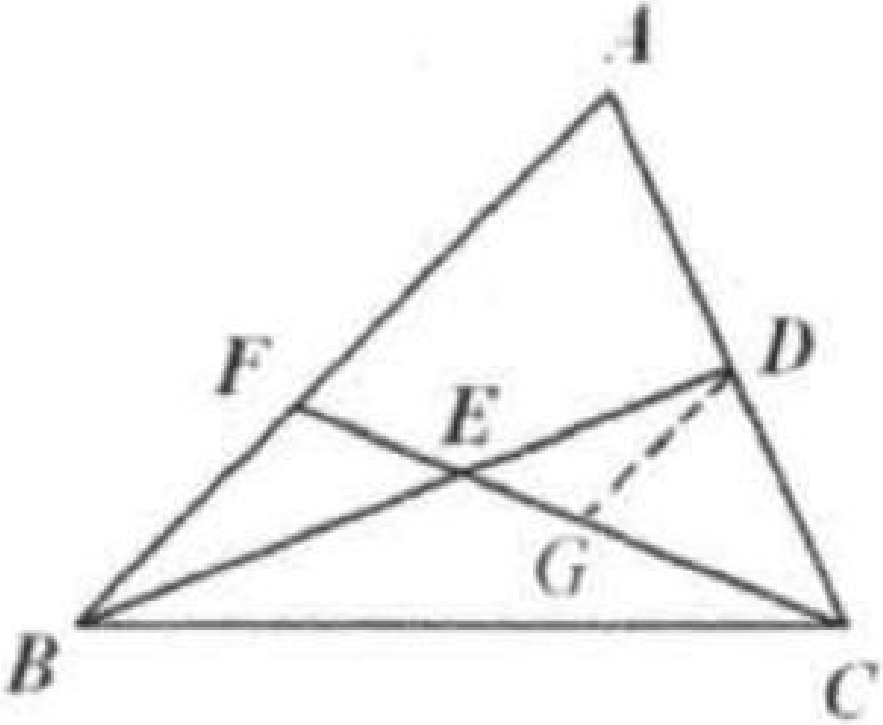
(AMC) In triangle ABC, BD is a median. CF intersects BD at E so that the length of BE is equal to the length of ED. Point F is on AB. Then, if $BF = 5, BA$ equals:
(A) 10
(B) 12
(C) 15
(D) 20
(E) none of these

Solution: (C).



Take G, the midpoint of FC. Connect $DG.DG//AF$ and DG is the midline of triangle $CAF, DG = \frac{1}{2}AF$.
$\triangle BEF \cong \triangle DEG, (BE = ED, \angle EBF = \angle EDG, \angle BEF = \angle DEG)$. So $DG = BF = 5, AF = 2DG = 10$.

Thus $BA = BF + AF = 5 + 10 = 15$.



The answer is (C).