

Q10. $\triangle EAG$
 $EG \perp AN$ and $AM \perp BC$
 $\angle BAC = \alpha$
 $\angle EAG = 360 - 90 - 90 - 2\alpha = 180 - 2\alpha$
 $\angle BAM = \alpha, \angle EAN = 90 - \alpha$
 $\angle MAN = \angle BAN + \angle EAB + \angle EAN = \alpha + 90 + 90 - \alpha = 180^\circ$

$\angle EAN = 90 - \alpha, \angle ENA = 90^\circ, \angle AEN = \alpha \quad \therefore \triangle AEN$
 $\angle BAM = \alpha, \angle AMB = 90^\circ, \angle ABM = 90 - \alpha \quad \therefore \triangle ABM$
 $EA = AB$
 $\Rightarrow \triangle AEN \cong \triangle BMA \quad (S.A.S)$
 $BC = 2BM = 2AN$
 $EG = 2EN = 2AM$