1. In fig (i) $AB = FE$, $BC = ED$, $AB \perp BE$, $FE \perp BE$. Prove that $\angle ADB = \angle FCE$.

2. In fig (ii) $BC = EC$, $\angle 1 = \angle 2$, prove that $\triangle GBC = \triangle DEC$.

3. In fig (iii) $AB = AC$ and $BE = CD$. Prove that $AE = AD$.

4. In fig (iv) $AD = AC$, $\angle BAC = \angle EAD$. Prove that $AB = AE$.

5. In fig (v) $\angle ABC$ is an angle in a semi-circle. Prove that $\angle ABC = 90^\circ$. (hint: Join $OB$)

6. In fig (vi) $ABCD$ is a square. $X$ & $Y$ are points on $AD$ and $BC$ respectively, such that $ABX$. Prove that $\angle BAY = \angle ABX$.

7. In fig (vii) $AB = AC$. Is $AB > BC$?
8. In fig (viii), AB = AC. Arrange BC, CA, CD in ascending order of magnitude.

9. In fig (ix) D is a point on the side BC of a \( \Delta ABC \) and E is a point such that ED = CD. Show that \( AB + AC > BE \).