

4-3 Congruent Triangles by Proof

Figure 1

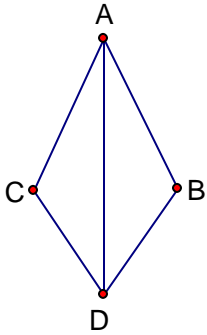


Figure 2

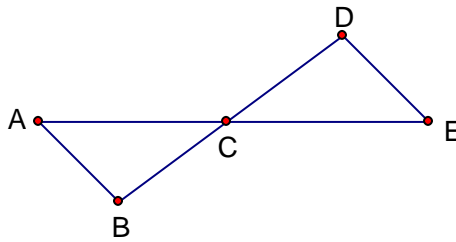


Figure 3

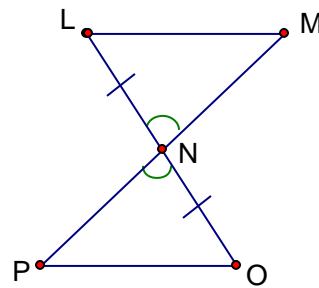


Figure 4

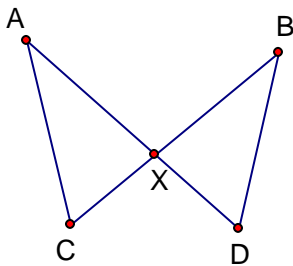


Figure 5

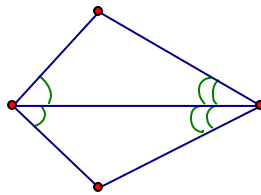
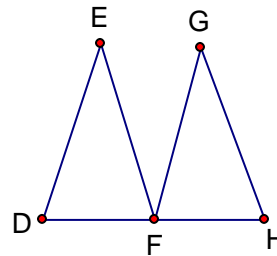


Figure 6



- _____ 1. In figure 1 above, what postulate would be used to prove that $\triangle ABD \cong \triangle ACD$ if $\overline{AC} \cong \overline{AB}$ and $\overline{CD} \cong \overline{BD}$?
- _____ 2. In figure 2 above, \overline{AE} and \overline{BD} bisect each other at point C. What postulate would be used to prove that $\triangle ABC \cong \triangle EDC$?
- _____ 3. In figure 3 above, what additional information is needed to prove that $\triangle MNL$ is congruent to $\triangle PNO$ by ASA?
- _____ 4. In figure 4 above, $AX = BX$ and $CX = DX$. What postulate would be used to prove that $\triangle AXC \cong \triangle BXD$?
- _____ 5. In figure 5 above, what postulate would be used to prove that the triangles are congruent?
- _____ 6. In figure 6 above, which statement below does not necessarily describe the triangles shown if $\triangle DEF \cong \triangle FGH$?
- | | |
|--|--|
| A. $\triangle EDF \cong \triangle GFH$ | C. $\triangle EFD \cong \triangle GHF$ |
| B. $\triangle FDE \cong \triangle FGH$ | D. $\triangle FED \cong \triangle HGF$ |