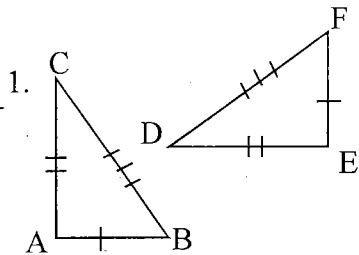


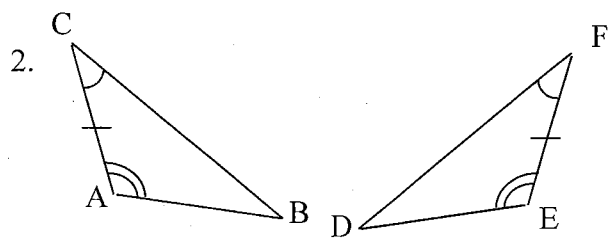
TRIANGLE CONGRUENCES and JUSTIFICATIONS

Use the markings on the figures and any other valid deductions to determine if the given triangles are congruent. If yes, complete the congruence statement and give the justification. If not, write "not possible".

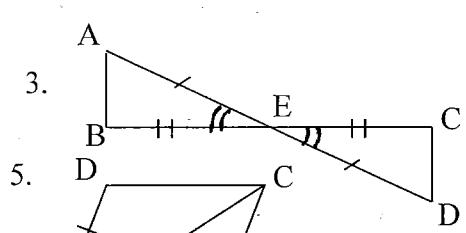
1. $\triangle ABC \cong \triangle EFD$
SSS



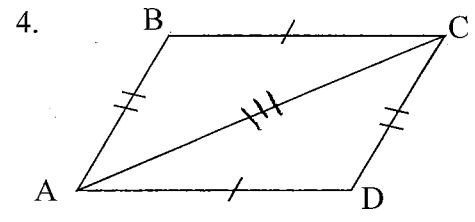
2. $\triangle ABC \cong \triangle EDF$
ASA



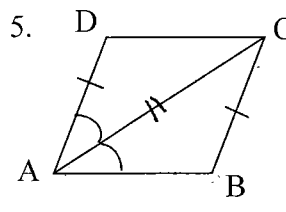
3. $\triangle ABE \cong \triangle DCE$
SAS



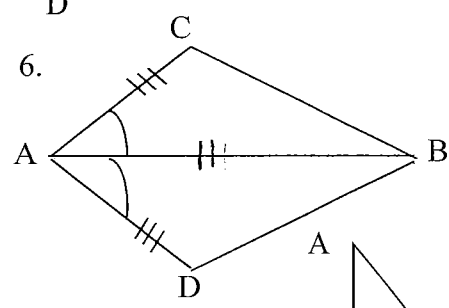
4. $\triangle ABC \cong \triangle CDA$
SSS



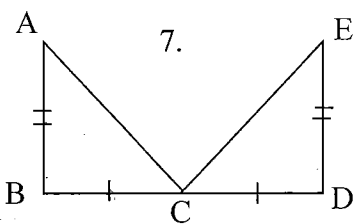
5. $\triangle ABC \cong \triangle ADC$
SAS



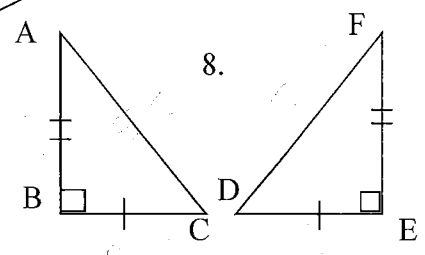
6. $\triangle ABC \cong \triangle ABD$
SAS



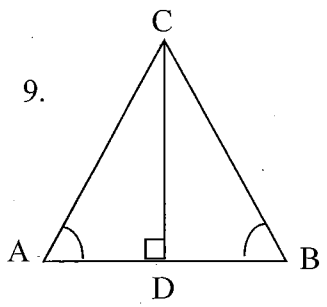
7. $\triangle ABC \cong$ _____



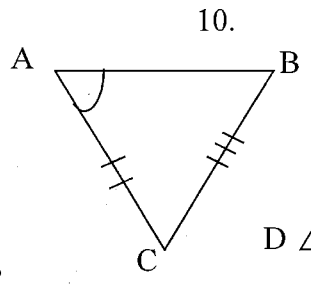
8. $\triangle ABC \cong$ _____



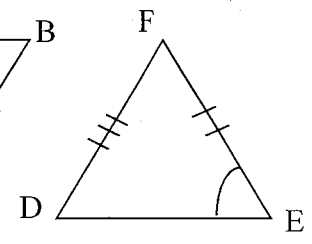
9. $\triangle ACD \cong \triangle BCD$
AAS



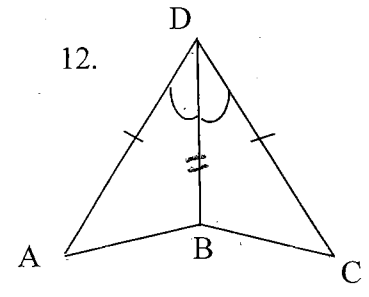
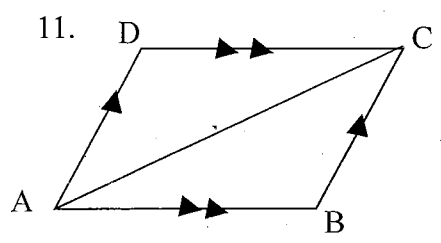
10. $\triangle ABC \cong$ _____
NEI



11. $\triangle ABC \cong$ _____
NEI



12. $\triangle ABD \cong \triangle CBD$
SAS



13. $\triangle ABC \cong$ _____

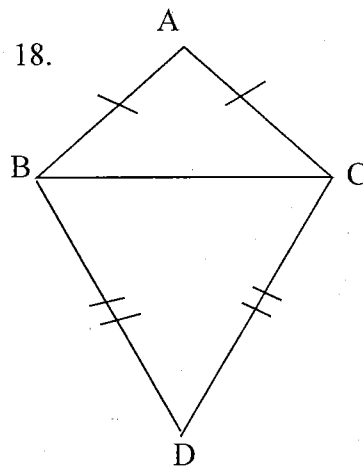
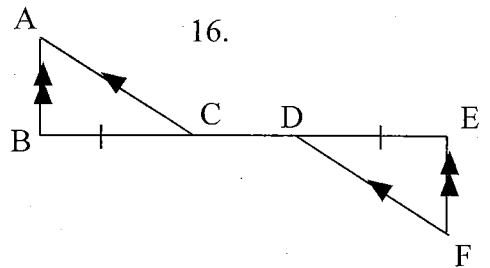
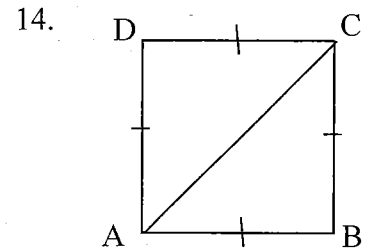
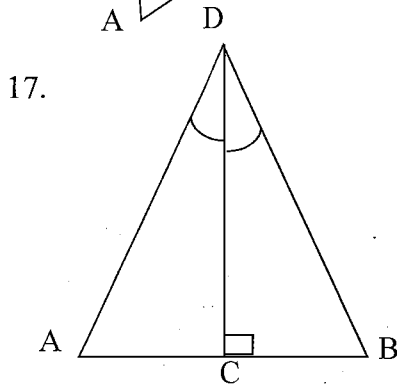
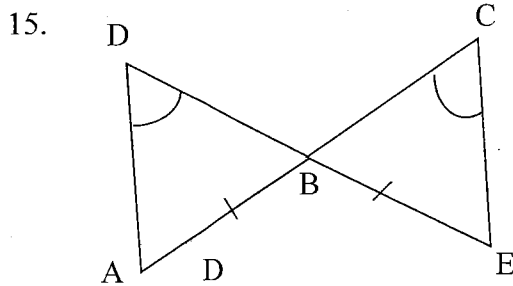
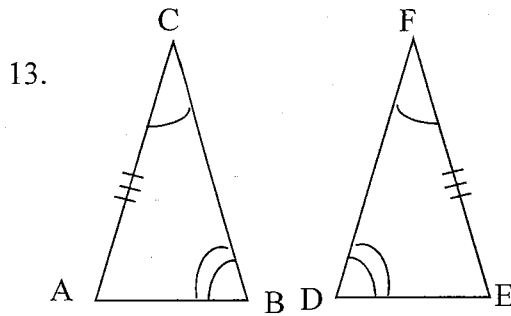
14. $\triangle ABC \cong$ _____

15. $\triangle ABD \cong$ _____

16. $\triangle ABC \cong$ _____

17. $\triangle ACD \cong$ _____

18. $\triangle ABC \cong$ _____



For the following problems $\triangle ABC \cong \triangle DEF$. SHOW ALL WORK AS ALWAYS! $\angle C \cong \angle F$

19. $AB = 3y + 12$

$DE = 5y - 18$ $5(15) - 18$

$DE = 57$

20. $m\angle C = 4y - 23$

$m\angle F = 2y - 5$

$m\angle C = 13^\circ$

$m\angle C = m\angle F$

$4y - 23 = 2y - 5$

$2y = 18$

$y = 9$

$AB \cong DE$
 $3y + 12 = 5y - 18$

$30 = 2y$

$y = 15$

