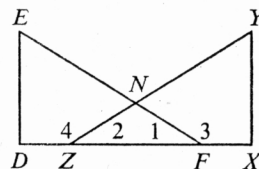


WRITTEN EXERCISES

In Exs. 1–10 prove $\triangle DEF \cong \triangle XYZ$.



1. Given: $\overline{DE} \cong \overline{XY}$; $\overline{DF} \cong \overline{XZ}$; $\overline{EF} \cong \overline{YZ}$.
2. Given: $\angle E \cong \angle Y$; $\angle 1 \cong \angle 2$; $\overline{DF} \cong \overline{XZ}$.
3. Given: $\angle D$ and $\angle X$ are rt. \sphericalangle s; $\overline{EF} \cong \overline{YZ}$; $\angle E \cong \angle Y$.
4. Given: $\angle D$ and $\angle X$ are rt. \sphericalangle s; $\overline{EF} \cong \overline{YZ}$; $\angle 1 \cong \angle 2$.
5. Given: $\overline{ED} \perp \overline{DF}$; $\overline{YX} \perp \overline{XZ}$; $\overline{EF} \cong \overline{YZ}$; $\overline{DE} \cong \overline{XY}$.
6. Given: $\overline{ED} \perp \overline{DF}$; $\overline{YX} \perp \overline{XZ}$; $\overline{DF} \cong \overline{XZ}$; $\angle E \cong \angle Y$.
7. Given: $DZ = XF$; $ED = YX$; $m\angle D = m\angle X$.
8. Given: $EN = YN$; $NF = NZ$; $m\angle D = m\angle X$; $m\angle E = m\angle Y$.
9. Given: $\overline{ED} \parallel \overline{YX}$; $\overline{ED} \perp \overline{DX}$; $DE = XY$; $m\angle E = m\angle Y$.
10. Given: $\overline{YX} \perp \overline{DX}$; $\overline{YX} \parallel \overline{ED}$; $YX = ED$; $m\angle 1 = m\angle 2$.

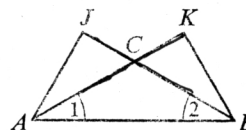


Exs. 1–10

In Exercises 11–14, $\triangle ABK$ and $\triangle BAJ$ lie in a plane.



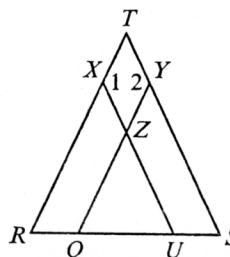
11. Given: $\angle JAB \cong \angle KBA$; $\angle 1 \cong \angle 2$.
Prove: $\triangle ABK \cong \triangle BAJ$.
12. Given: $\angle 1 \cong \angle 2$; $\angle AJB \cong \angle BKA$.
Prove: $\triangle ABK \cong \triangle BAJ$.
13. Given: $AK = BJ$; $AC = BC$.
Prove: $\triangle ACJ \cong \triangle BCK$.
14. Given: $m\angle JAB = m\angle KBA$; \overline{AK} bisects $\angle JAB$; \overline{BJ} bisects $\angle KBA$.
Prove: $\triangle ABK \cong \triangle BAJ$.



Exs. 11–14



15. Given: $\overline{XU} \parallel \overline{TS}$; $\overline{YQ} \parallel \overline{TR}$; $m\angle R = m\angle S$; $RQ = US$.
Prove: $\triangle RUX \cong \triangle SQY$.
16. Given: $\angle 1 \cong \angle 2$; $\overline{QZ} \cong \overline{UZ}$; $\overline{ZX} \cong \overline{ZY}$; $\overline{RT} \cong \overline{ST}$; $\overline{XT} \cong \overline{YT}$.
Prove: $\triangle RUX \cong \triangle SQY$.
17. Given: $\angle T \cong \angle XZY$; $\angle RUX \cong \angle S$; $\overline{RQ} \cong \overline{US}$.
Prove: $\triangle RUX \cong \triangle QSY$.
18. Given: $\overline{XU} \parallel \overline{TS}$; $\angle YQS$ supplementary to $\angle XUS$; $RU = QS$; $\angle R \cong \angle S$.
Prove: $\triangle RUX \cong \triangle QSY$.



Exs. 15–18