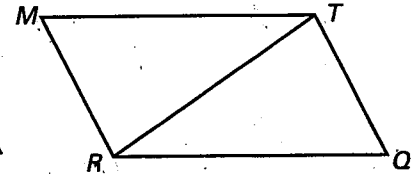


**Practice A**

For use with pages 212-219

Use the diagram. Name the included angle between the pair of sides given.

1.  $\overline{MT}$  and  $\overline{TR}$   ~~$\angle MTR$~~
2.  $\overline{TQ}$  and  $\overline{RT}$   ~~$\angle RTQ$~~
3.  $\overline{RT}$  and  $\overline{MR}$   ~~$\angle MRT$~~
4.  $\overline{TQ}$  and  $\overline{RO}$   ~~$\angle RQT$~~
5.  $\overline{MR}$  and  $\overline{TM}$   ~~$\angle M$~~
6.  $\overline{RT}$  and  $\overline{OR}$   ~~$\angle TRQ$~~

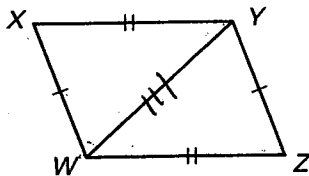


For each pair of congruent triangles, name the pairs of corresponding sides.

7.  $\triangle ABC \cong \triangle TDF$   $\overline{AB} \cong \overline{TD}$ ,  $\overline{BC} \cong \overline{DF}$ ,  $\overline{AC} \cong \overline{TF}$
8.  $\triangle DCT \cong \triangle FLG$   $\overline{DC} \cong \overline{FL}$ ,  $\overline{CT} \cong \overline{LG}$ ,  $\overline{DT} \cong \overline{FG}$
9.  $\triangle PWR \cong \triangle ADE$   $\overline{PW} \cong \overline{AD}$ ,  $\overline{WR} \cong \overline{DE}$ ,  $\overline{PR} \cong \overline{AE}$

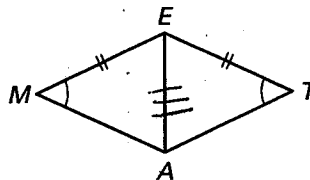
Decide whether enough information is given to prove that the triangles are congruent. If there is enough information, state the congruence postulate you would use.

10.  $\triangle XYW$ ,  $\triangle ZWY$



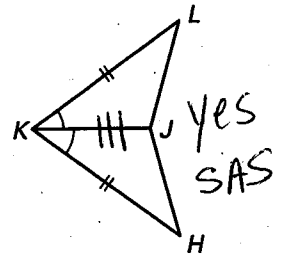
yes, SSS

11.  $\triangle MAE$ ,  $\triangle TAE$



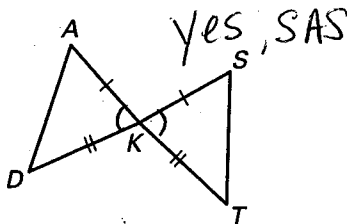
no

12.  $\triangle KHJ$ ,  $\triangle KLJ$



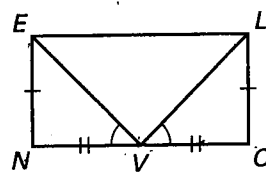
yes SAS

13.  $\triangle DKA$ ,  $\triangle TKS$



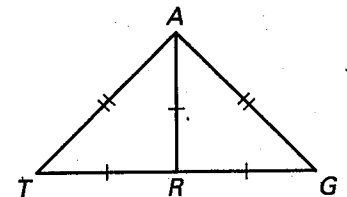
yes, SAS

14.  $\triangle ENV$ ,  $\triangle LOV$



no

15.  $\triangle TRA$ ,  $\triangle GRA$



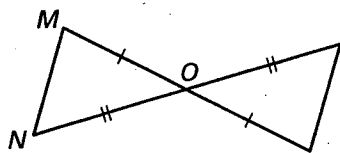
yes, SSS

Complete the proof by supplying the reasons.

16. Given: O is the midpoint of  $\overline{MQ}$ .

O is the midpoint of  $\overline{NP}$ .

Prove:  $\triangle MON \cong \triangle QOP$  2. def. of midpoint  $\rightarrow$



4. def. of midpoint  $\rightarrow$

SAS  $\rightarrow$

Statements

1. O is the midpoint of  $\overline{MQ}$ .
2.  $\overline{MO} \cong \overline{QO}$
3. O is the midpoint of  $\overline{NP}$ .
4.  $\overline{NO} \cong \overline{PO}$
5.  $\angle MON \cong \angle QOP$
6.  $\triangle MON \cong \triangle QOP$

Reasons

1. Given
2. ?
3. Given
4. ?
5. Vertical  $\angle$ 's are  $\cong$
6. ?

**Practice B**

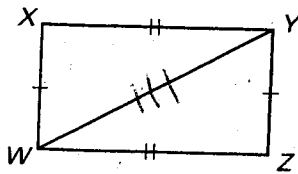
For use with pages 212-219

For each triangle, name the included angle between the pair of sides given.

- $\triangle MAT$ :  $\overline{MT}$  and  $\overline{TA}$   $\angle T$
- $\triangle CDA$ :  $\overline{CA}$  and  $\overline{DC}$   $\angle C$
- $\triangle PSC$ :  $\overline{CS}$  and  $\overline{PS}$   $\angle S$
- $\triangle WDG$ :  $\overline{DG}$  and  $\overline{GW}$   $\angle G$

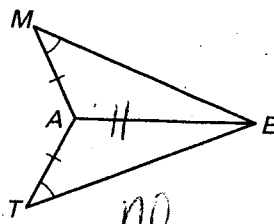
Decide whether enough information is given to prove that the triangles are congruent. If there is enough information, state the congruence postulate you would use.

5.  $\triangle XYW, \triangle ZWY$



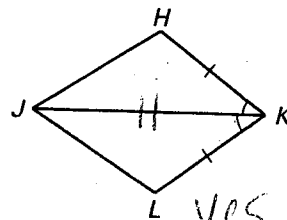
yes, SSS

6.  $\triangle MAE, \triangle TAE$



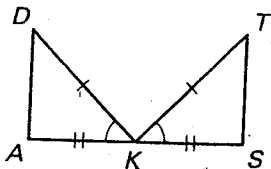
no

7.  $\triangle KHJ, \triangle K LJ$



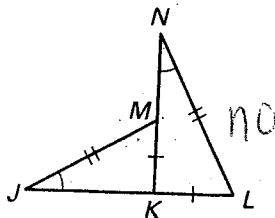
yes, SAS

8.  $\triangle DKA, \triangle TKS$



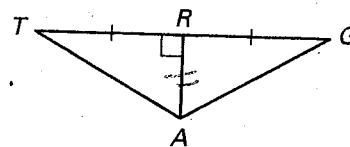
yes, SAS

9.  $\triangle JKM, \triangle NKL$



no

10.  $\triangle TRA, \triangle GRA$



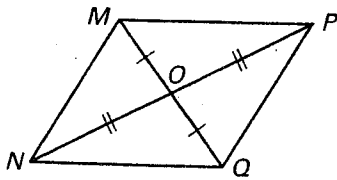
yes, SAS

Complete the proof by supplying the statement or reason.

11. Given:  $O$  is the midpoint of  $\overline{MQ}$ .

$O$  is the midpoint of  $\overline{NP}$ .

Prove:  $\triangle MON \cong \triangle QOP$



Statements

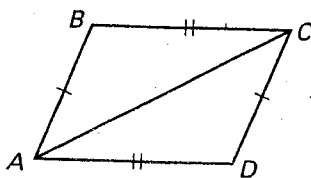
Reasons

- |   |                                  |
|---|----------------------------------|
| 1. $O$ is the midpoint of $\overline{MQ}$ . | 1. Given                         |
| 2. $\overline{MO} \cong \overline{OQ}$      | 2. Definition of midpoint        |
| 3. $O$ is the mdpt. of $\overline{NP}$      | 3. Given                         |
| 4. $\overline{NO} \cong \overline{OP}$      | 4. Definition of midpoint        |
| 5. $\angle MON \cong \angle QOP$            | 5. Vertical $\angle$ are $\cong$ |
| 6. $\triangle MON \cong \triangle QOP$      | 6. Def. of $\cong \triangle$     |

12. Write a paragraph proof.

Given:  $\overline{AB} \cong \overline{CD}, \overline{BC} \cong \overline{DA}$

Prove:  $\triangle ABC \cong \triangle CDA$

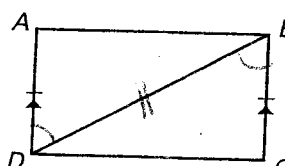


- | Statement                              | Reason                                 |
|--|--|
| 1. $\overline{AB} \cong \overline{CD}$ | 1. Given                               |
| 2. $\overline{BC} \cong \overline{DA}$ | 2. Reflexive Prop. of $\cong$          |
| 3. SSS                                 | 3. $\triangle ABC \cong \triangle CDA$ |

13. Write a two-column proof.

Given:  $\overline{AD} \cong \overline{CB}, \overline{AD} \parallel \overline{CB}$

Prove:  $\triangle ABD \cong \triangle CDB$



- | Statement                              | Reason                        |
|--|-------------------------------|
| 1. $\overline{AD} \cong \overline{CB}$ | 1. Given                      |
| 2. $\overline{DB} \cong \overline{DB}$ | 2. Reflexive Prop. of $\cong$ |
| 3. $\angle ADB \cong \angle CBD$       | 3. Alt. Int. $\angle$ Theorem |
| 4. $\triangle ABD \cong \triangle CDB$ | 4. SAS                        |