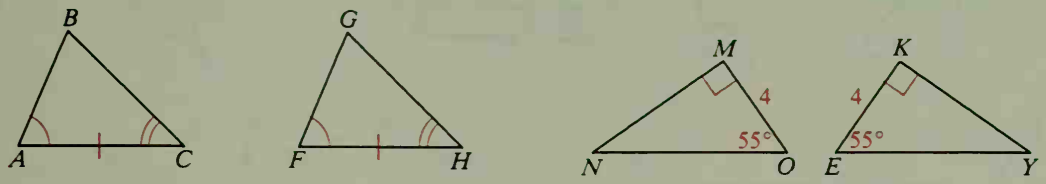
Postulate 14 *ASA Postulate*

If two angles and the included side of one triangle are congruent to two angles and the included side of another triangle, then the triangles are congruent.

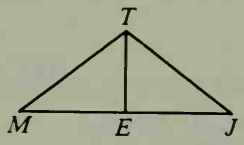


By the ASA Postulate, $\triangle ABC \cong \triangle FGH$ and $\triangle MON \cong \triangle KEY$.

Example Supply the missing statements and reasons in the following proof.

Given: E is the midpoint of $\overline{MJ}$; $\overline{TE} \perp \overline{MJ}$

Prove: $\triangle MET \cong \triangle JET$



Proof:

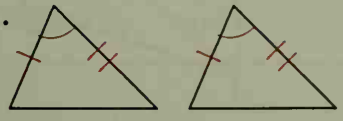
Statements	Reasons
1. E is the midpoint of $\overline{MJ}$.	1. Given
2. ? $\cong$?	2. Def. of midpoint
3. $\overline{TE} \perp \overline{MJ}$	3. ?
4. $\angle MET \cong \angle JET$	4. ?
5. $\overline{TE} \cong$?	5. ?
6. $\triangle MET \cong \triangle JET$	6. ?

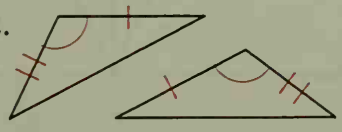
Solution

Statement 2	$\overline{ME} \cong \overline{JE}$
Reason 3	Given
Reason 4	If two lines are $\perp$, then they form $\cong$ adj. $\measuredangle$s.
Statement 5	$\overline{TE}$
Reason 5	Reflexive Prop.
Reason 6	SAS Postulate

Classroom Exercises

Does the SAS Postulate justify that the two triangles are congruent?

1. 

2. 

3.