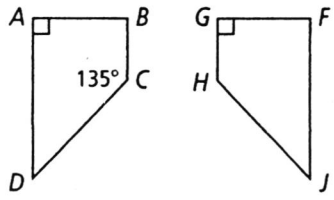
Multiple Choice

For Exercises 1–6, choose the correct letter.

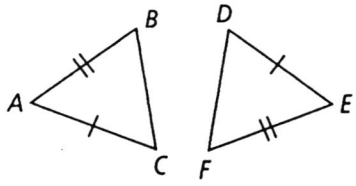
1. The pair of polygons at the right is congruent. What is $m\angle J$?



   (A) 45 (C) 135

   (B) 90 (D) 145

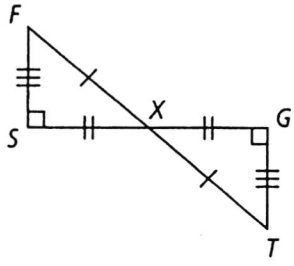
2. The triangles at the right are congruent. Which of the following statements must be true?



   (F) $\angle A \cong \angle D$ (H) $\overline{AB} \cong \overline{DE}$

   (G) $\angle B \cong \angle E$ (I) $\overline{BC} \cong \overline{FD}$

3. Given the diagram at the right, which of the following must be true?



   (A) $\triangle XSF \cong \triangle XTG$ (C) $\triangle FXS \cong \triangle XGT$

   (B) $\triangle SXF \cong \triangle GXT$ (D) $\triangle FXS \cong \triangle GXT$

4. If $\triangle RST \cong \triangle XYZ$, which of the following need not be true?

   (F) $\angle R \cong \angle X$ (G) $\angle T \cong \angle Z$ (H) $\overline{RT} \cong \overline{XZ}$ (I) $\overline{SR} \cong \overline{YZ}$

5. If $\triangle ABC \cong \triangle DEF$, $m\angle A = 50$, and $m\angle E = 30$, what is $m\angle C$?

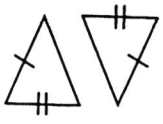
   (A) 30 (B) 50 (C) 100 (D) 120

6. If $ABCD \cong QRST$, $m\angle A = x - 10$, and $m\angle Q = 2x - 30$, what is $m\angle A$?

   (F) 10 (G) 20 (H) 30 (I) 40

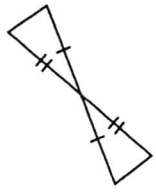
For Exercises 1–4, choose the correct letter.

7. Which pair of triangles can be proved congruent by SSS?

   (A) 

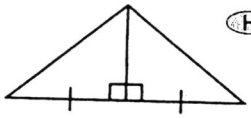
   (B) 

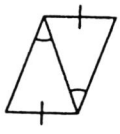
   (C) 

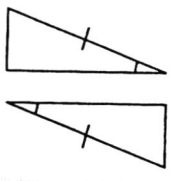
   (D) 

8. Which pair of triangles can be proved congruent by SAS?

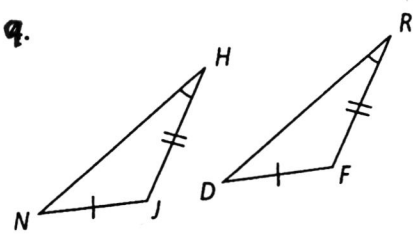
   (F) 

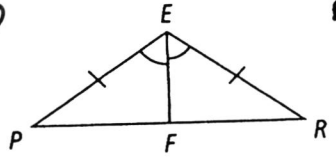
   (G) 

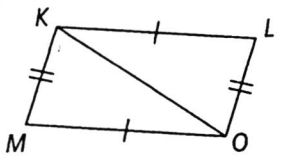
   (H) 

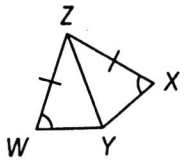
   (I) 

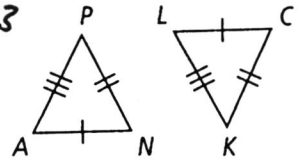
Would you use SSS or SAS to prove the triangles congruent? If there is not enough information to prove the triangles congruent by SSS or SAS, write *not enough information.* Explain your answer.

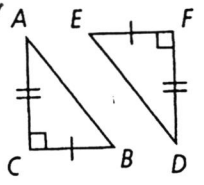
9. 

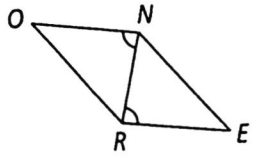
10 

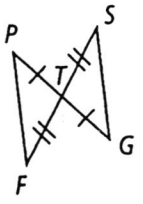
11 

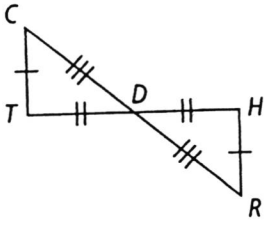
12 

13 

14 

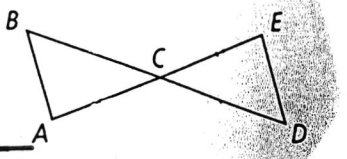
15 

16 

17. 

18. **Given:** $\overline{BC} \cong \overline{DC}$, $\overline{AC} \cong \overline{EC}$

Prove: $\triangle ABC \cong \triangle EDC$



Statements	Reasons