Name: _____

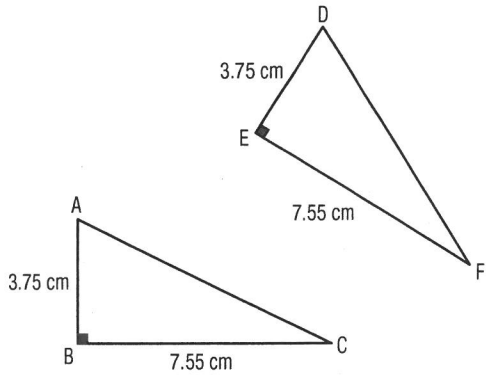
Group: _____ Date: _____

SUPPORT 3.1

Congruent triangles

1 For each case, identify the geometric statement which allows you to state that the two triangles are congruent.

a)



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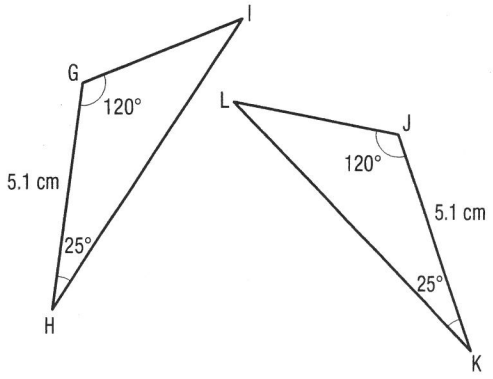
b)



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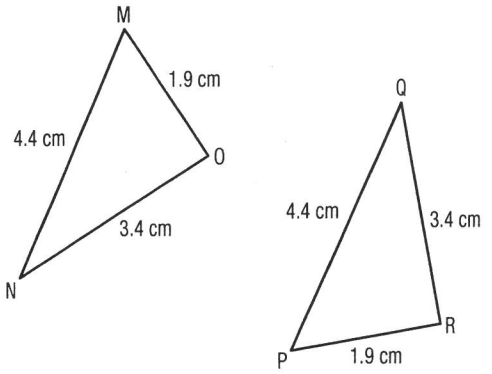
_____

c)



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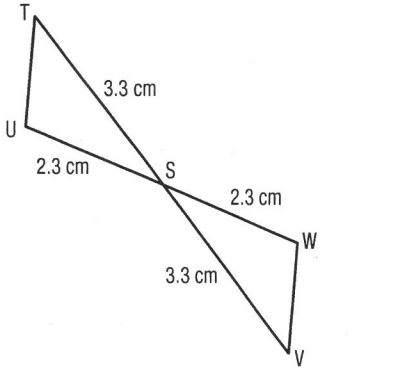
_____

d)



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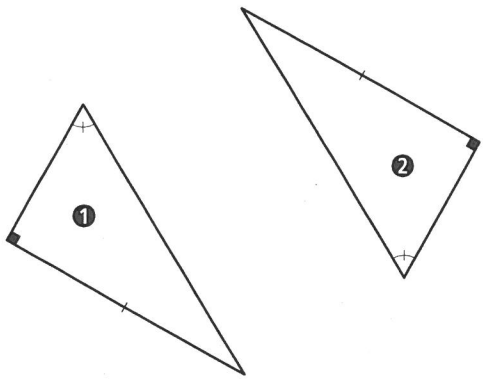
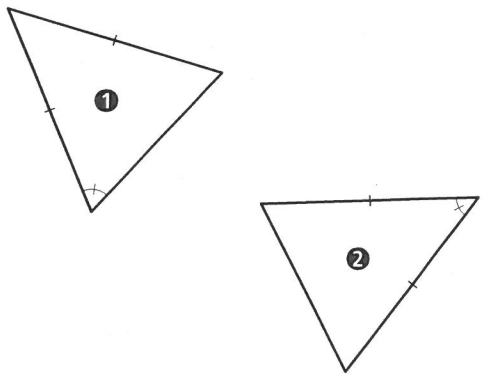
_____

2 Among the following pairs of triangles, identify which are congruent.

Ⓐ



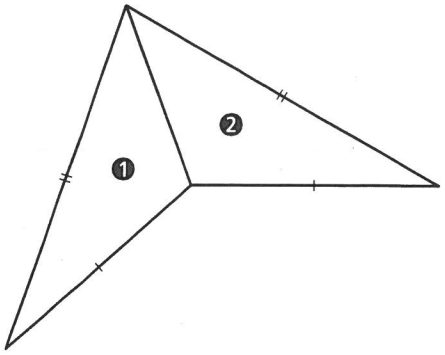
Ⓑ



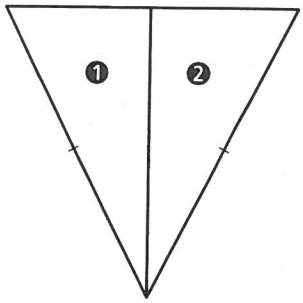
Name: _____

Group: _____ Date: _____

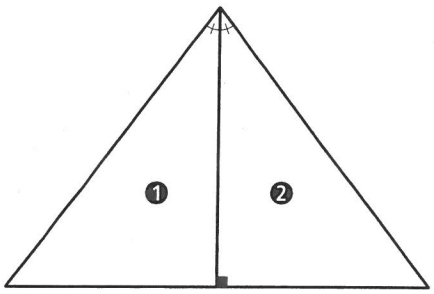
Ⓒ



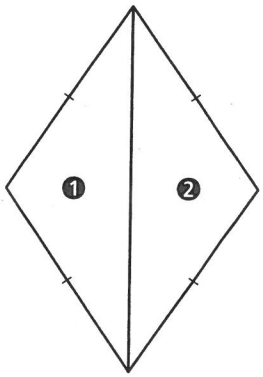
Ⓓ



Ⓔ



Ⓕ



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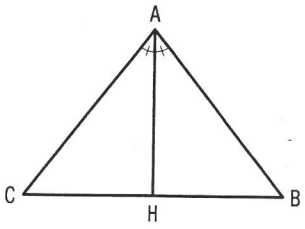
3 In the adjacent illustration, ABC is an isosceles triangle and $\overline{AH}$ is the bisector of angle BAC. Complete the following proof so that it is possible to conclude that triangles ABH and ACH are congruent.



Hypotheses:	Triangle ABC is isosceles.
	a)
Conclusion:	Triangles ABH and ACH are congruent.

STATEMENT	JUSTIFICATION
$\angle B \cong \angle C$	**b)**
$\overline{AB} \cong \overline{AC}$	By hypothesis, triangle ABC is isosceles.
$\angle BAH \cong \angle CAH$	**c)**
$\Delta ABH \cong \Delta ACH$	**d)**