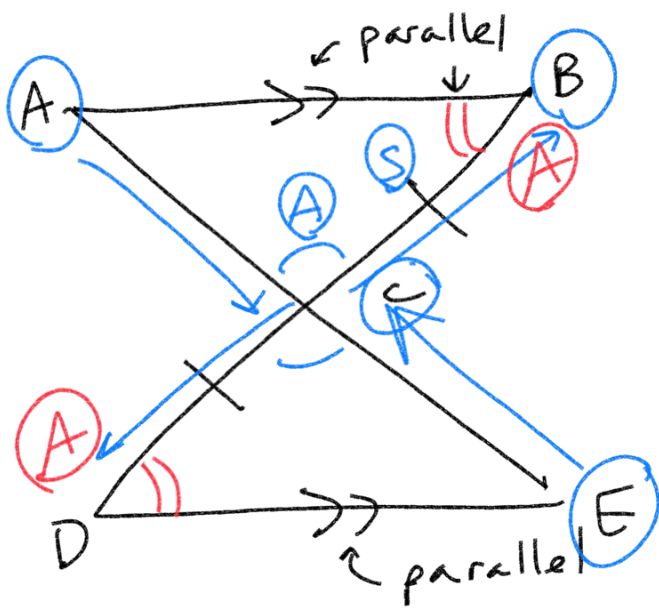


Given  
 $\angle ABD \cong \angle CDB$   
 $\angle ADB \cong \angle CBD$

Prove:  $\overline{CD} \cong \overline{AB}$

Statement	Reason
$\angle ABD \cong \angle CDB$	Given
$\angle ADB \cong \angle CBD$	Given
$\overline{BD} \cong \overline{BD}$	Reflexive property
$\triangle ABD \cong \triangle CDB$	ASA
$\overline{CD} \cong \overline{AB}$	CPCTC

variable  
 reflexive  
 vertical,  
 or alt interior  
 triangle  
 congruency



Given parallel lines

$$\overline{AB} \parallel \overline{DE}$$

$$\overline{BC} \cong \overline{DC}$$

Prove

$$\overline{AB} \cong \overline{ED}$$

Statement

$$\overline{AB} \parallel \overline{DE}$$

$$\overline{BC} \cong \overline{DC}$$

$$\Rightarrow \angle ACB \cong \angle ECD$$

$$\angle B \cong \angle D$$

$$\triangle ABC \cong \triangle EDC$$

$$\overline{AB} \cong \overline{ED}$$

Reason

Given

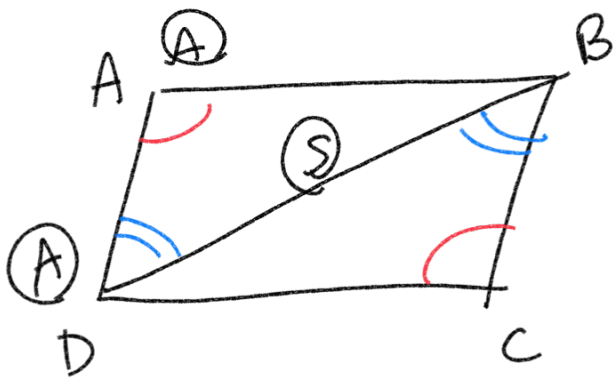
Given

vertical angles

alt. interior angles

ASA

CPCTC



Given  
 $\angle BAD \cong \angle DCB$   
 $\angle ADB \cong \angle CBD$

Prove  
 $\overline{AD} \cong \overline{CB}$

Statement

$\Rightarrow \angle BAD \cong \angle DCB$

$\Rightarrow \angle ADB \cong \angle CBD$

$\overline{BD} \cong \overline{DB}$

$\triangle DAB \cong \triangle BCD$

$\overline{AD} \cong \overline{CB}$

Reason

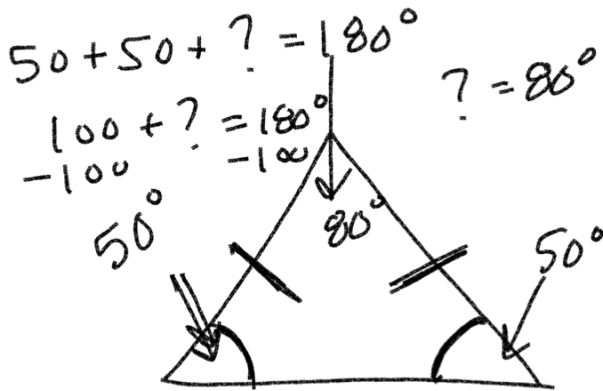
Given

Given

Reflexive Property

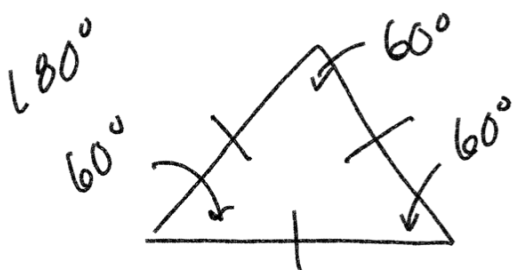
AAS

CPCTC



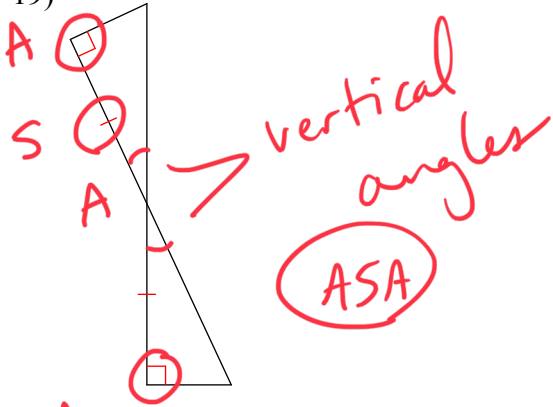
Equal sides open  
 from equal angles

Isosceles

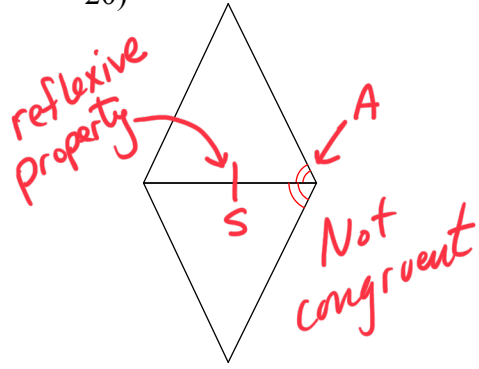


All three sides equal,  
 all three angles are equal  
equilateral

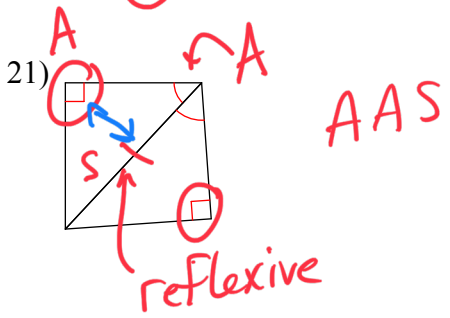
19)



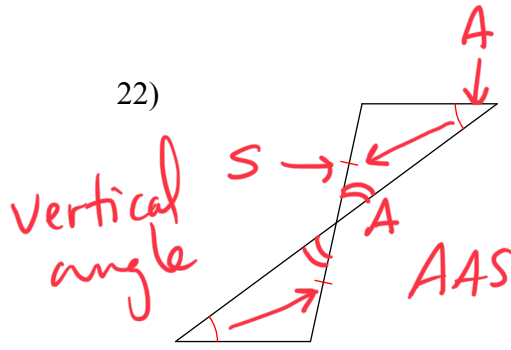
20)



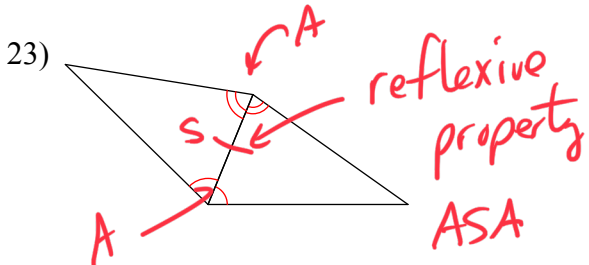
21)



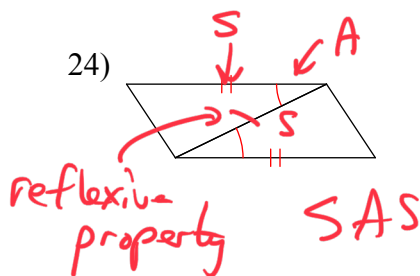
22)



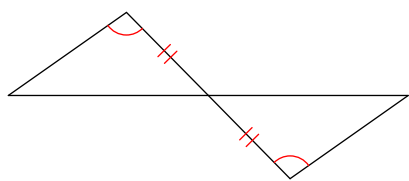
23)



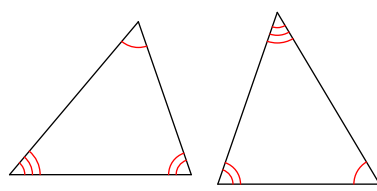
24)



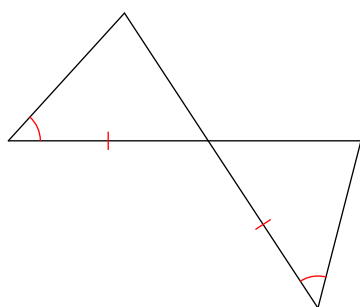
25)



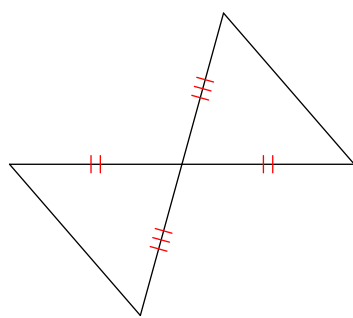
26)



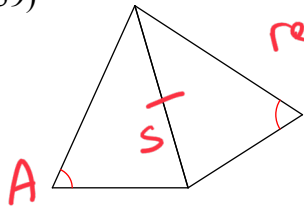
27)



28)

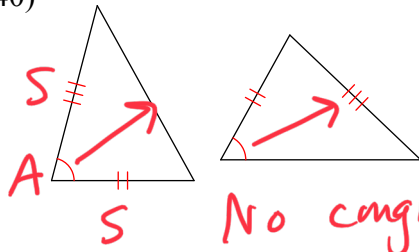


39)



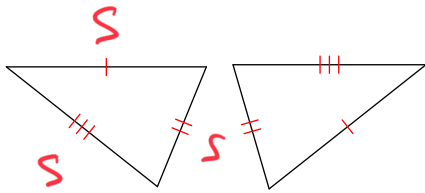
reflexive property  
No congruency

40)



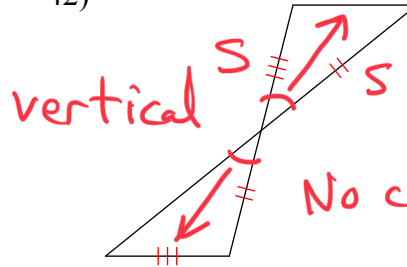
No congruency

41)



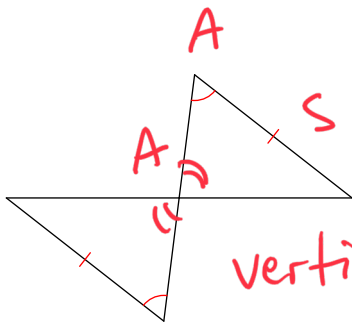
SSS

42)



No congruency

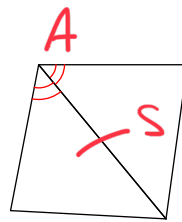
43)



AAS

vertical angles

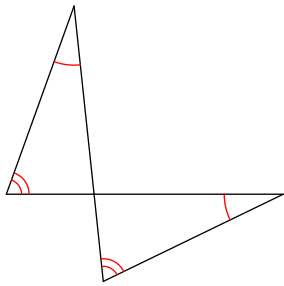
44)



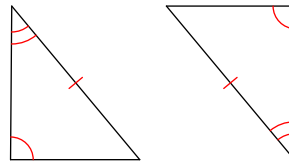
reflexive

No congruency

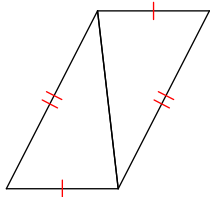
45)



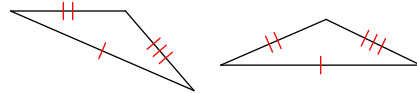
46)



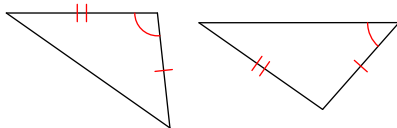
47)



48)



49)



50)

