

1. Solve for x.

$10x + 1 + 9x - 11 = 180$
 $19x - 10 = 180$
 $+10 \quad +10$
 $19x = 190$
 $\frac{19x}{19} = \frac{190}{19}$
 $x = 10$

2. Solve for x.

$4x + 24 = 7x + 3$
 $-4x \quad -4x$
 $-24 \quad -3$
 $21 = 3x$
 $\frac{21}{3} = \frac{3x}{3}$
 $x = 7$

3. Solve for x.

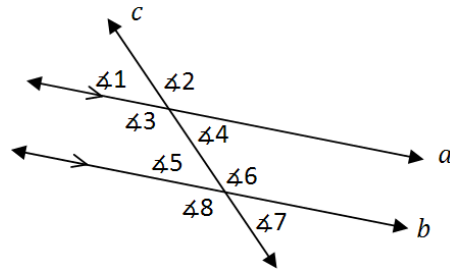
$x + 3 + x - 1 + x + 1 = 90$
 $3x + 3 = 90$
 $-3 \quad -3$
 $3x = 87$
 $\frac{3x}{3} = \frac{87}{3}$
 $x = 29$

4. Solve for q.

$3q + 15q + 18 = 180$
 $18q + 18 = 180$
 $-18 \quad -18$
 $18q = 162$
 $\frac{18q}{18} = \frac{162}{18}$
 $q = 9$

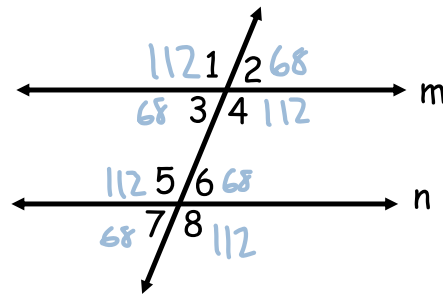
Name the angles listed and the special property.

- 5. $\angle 1$ and $\angle 5$ Corresponding
- 6. $\angle 4$ and $\angle 6$ S.S. interior
- 7. $\angle 2$ and $\angle 8$ alt exterior
- 8. $\angle 4$ and $\angle 5$ alt interior



9. Given $m \parallel n$ and $m\angle 8$, find the measures of all the numbered angles in the figure.

- $m\angle 8 = 112$
 $m\angle 1 = \underline{112}$ $m\angle 2 = \underline{68}$
 $m\angle 3 = \underline{68}$ $m\angle 4 = \underline{112}$
 $m\angle 5 = \underline{112}$ $m\angle 6 = \underline{68}$
 $m\angle 7 = \underline{68}$



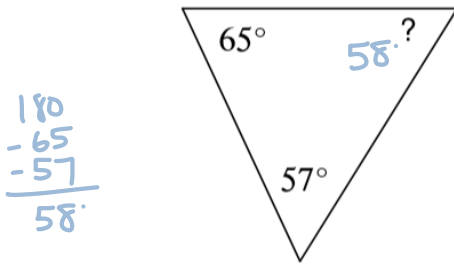
10. Solve for x.

$3x - 50 = 2x - 5$
 $-2x \quad +50 \quad -2x \quad +50$
 $x = 45$

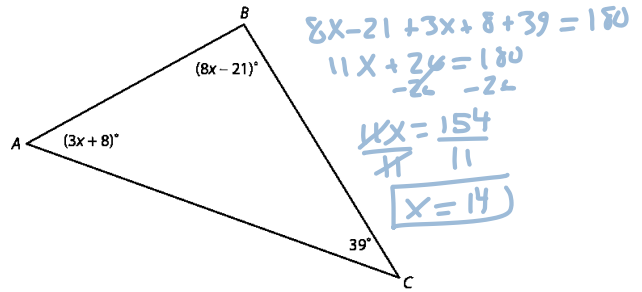
11. Solve for x.

$6x + 7 + 3x + 38 = 180$
 $9x + 45 = 180$
 $-45 \quad -45$
 $9x = 135$
 $\frac{9x}{9} = \frac{135}{9}$
 $x = 15$

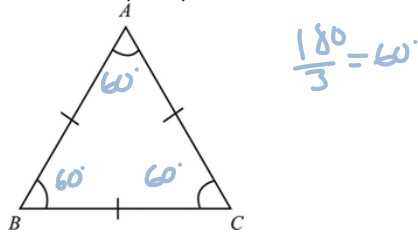
12. Find the missing angle (?).



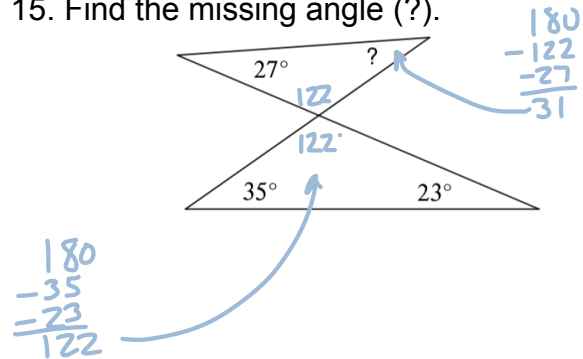
13. What is the measure of $\angle B$?



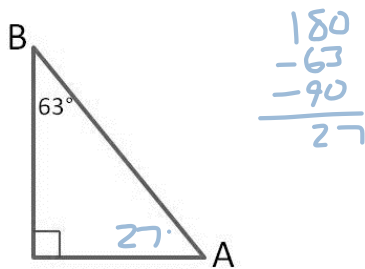
14. Find the measure $\angle A$, $\angle B$, and $\angle C$.



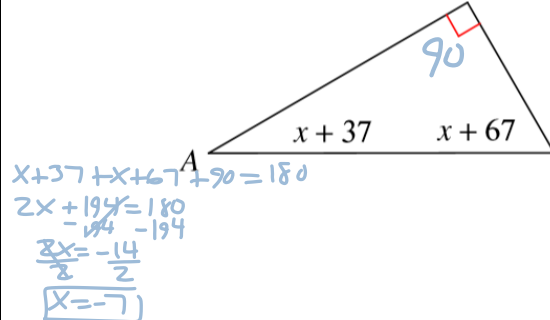
15. Find the missing angle (?).



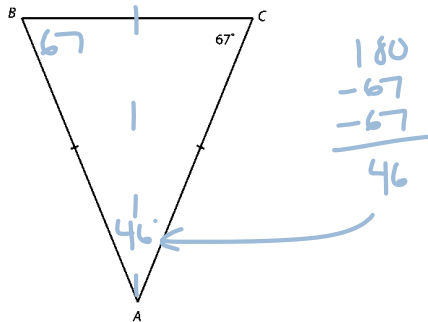
16. What is the measure of $\angle A$?



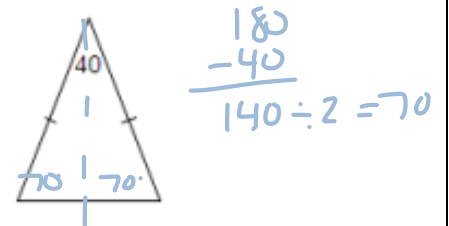
17. What is the measure of $\angle A$?



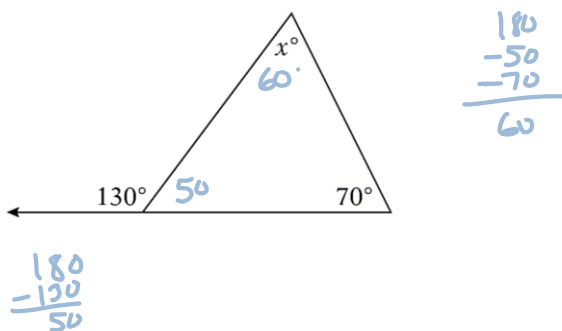
18. What is the measure of $\angle A$ and $\angle B$?



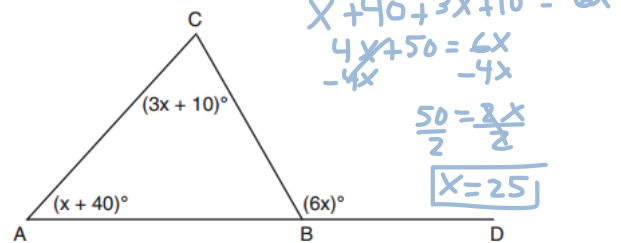
19. Find the missing angle.



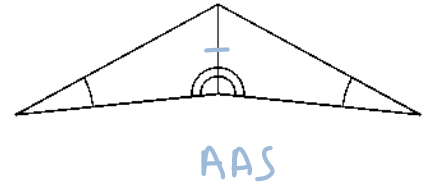
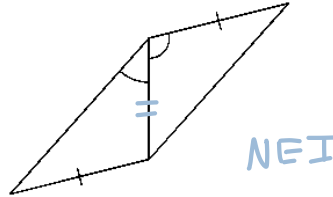
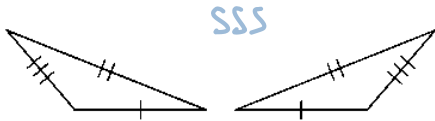
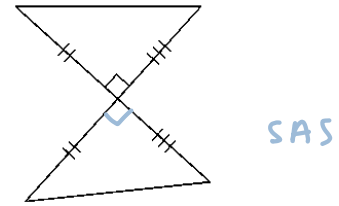
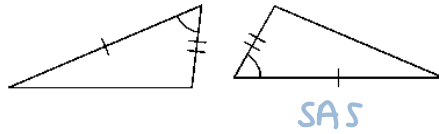
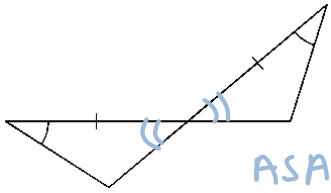
20. Find x.



21. Solve for x.

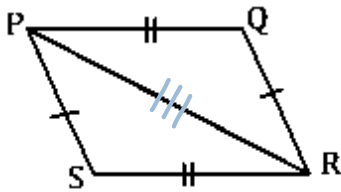


22. Use the given information below to determine which congruence statement can be used to show that the triangles are congruent. If it is not possible to prove the triangle congruence, explain why not.



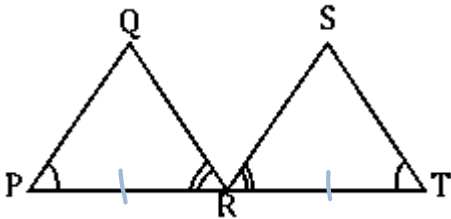
Complete the two column proofs below.

23. $\overline{PS} \cong \overline{QR}$, $\overline{PQ} \cong \overline{SR}$



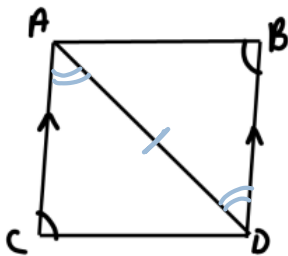
Statements	Reasons
$\overline{PS} \cong \overline{QR}$,	Given
$\overline{PQ} \cong \overline{SR}$	Given
$\overline{PR} \cong \overline{PR}$	Reflexive
$\Delta PSR \cong \Delta RQP$	SSS

24. R is the midpoint of \overline{PT} ,
 $\angle PRQ \cong \angle TRS$, and $\angle P \cong \angle T$.



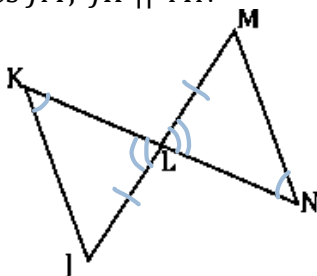
Statements	Reasons
$\angle PRQ \cong \angle TRS$	Given
$\angle P \cong \angle T$	Given
R is the midpoint of \overline{PT} ,	Given
$\overline{PR} \cong \overline{TR}$	def midpoint
$\Delta PRQ \cong \Delta TRS$	ASA

25. $\overline{AC} \parallel \overline{BD}$, $\angle C \cong \angle B$



Statements	Reasons
$\overline{AC} \parallel \overline{BD}$	Given
$\angle C \cong \angle B$	Given
$\angle BDA \cong \angle CAD$	alt int \angle 's
$\overline{AD} \cong \overline{AD}$	reflexive
$\Delta BDA \cong \Delta CAD$	AAS

26. \overline{KN} Bisects \overline{JM} , $\overline{JK} \parallel \overline{MN}$



Statements	Reasons
\overline{KN} Bisects \overline{JM}	Given
$\overline{JL} \cong \overline{LM}$	def bisect
$\overline{JK} \parallel \overline{MN}$	Given
$\angle JKL \cong \angle MNL$	alt int \angle 's
$\angle KLJ \cong \angle NLM$	Vertical \angle 's
$\Delta KJL \cong \Delta MNL$	AAS