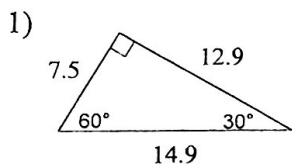


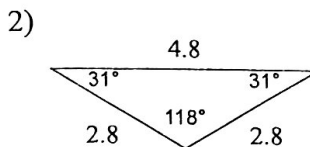
Ch 4 Test Review

Answer Key

Classify each triangle by its angles and sides.

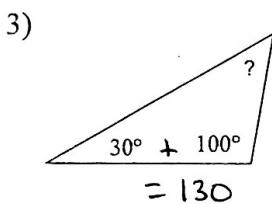


Scalene
Right

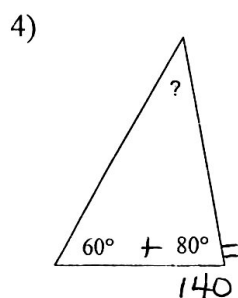


Isosceles
obtuse

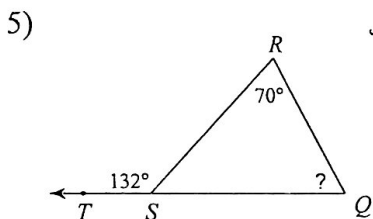
Find the measure of each angle indicated.



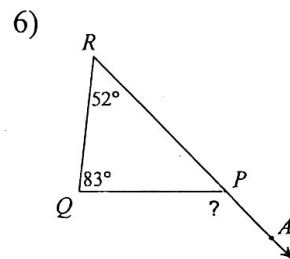
$$\begin{array}{r} 180 \\ -130 \\ \hline 50^\circ \end{array}$$



$$\begin{array}{r} 180 \\ -140 \\ \hline 40^\circ \end{array}$$

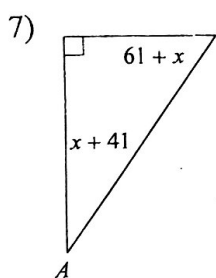


$$\begin{array}{r} 70 + ? = 132 \\ -70 \\ \hline 62^\circ \end{array}$$



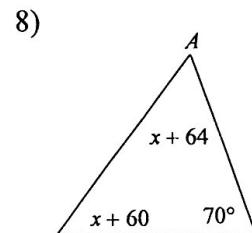
$$\begin{array}{r} 52 + 83 = ? \\ 52 \\ 83 \\ \hline 135^\circ \end{array}$$

Find the measure of angle A.



$$\begin{array}{r} 61 + x + x + 41 + 90 = 180 \\ 2x + 192 = 180 \\ -192 \quad -192 \\ \hline 2x - 12 \\ \frac{2x}{2} \quad \frac{-12}{2} \\ x = -6 \end{array}$$

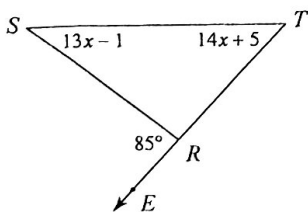
$$\begin{array}{r} \angle A = x + 41 \\ -6 + 41 = 35^\circ \end{array}$$



$$\begin{array}{r} x = -7 \\ \angle A = -7 + 64 \\ \hline \angle A = 57^\circ \end{array}$$

Find the measure of the angle indicated.

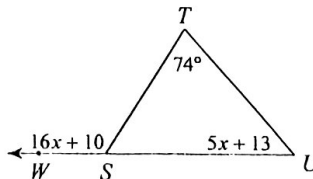
9) Find $m\angle T$.



$$\begin{array}{r} 13x - 1 + 14x + 5 + 85 = 180 \\ 27x + 4 = 85 \\ -4 \quad -4 \\ \hline 27x = 81 \\ \frac{27x}{27} \quad \frac{81}{27} \\ x = 3 \end{array}$$

$$\angle T = 14(3) + 5 = 47^\circ$$

10) Find $m\angle U$.



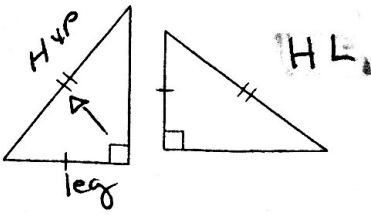
$$74 + 5x + 13 = 16x + 10$$

$$x = 7$$

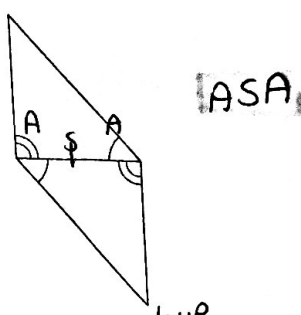
$$\angle U = 48^\circ$$

State if the two triangles are congruent. If they are, state how you know.

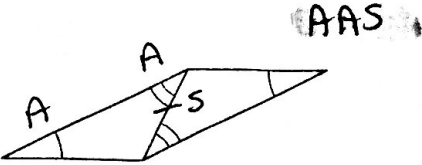
11)



12)



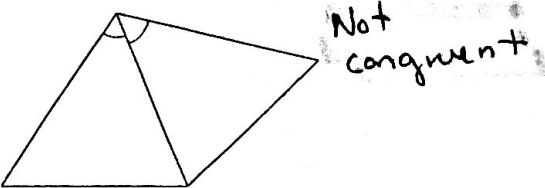
13)



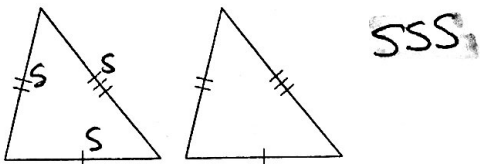
14)



15)



16)

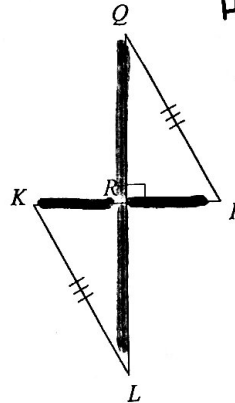
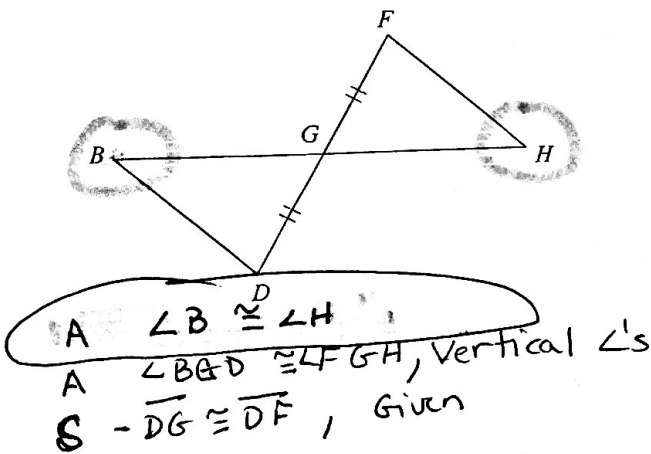


State what additional information is required in order to know that the triangles are congruent for the reason given.

17) AAS

18) HL

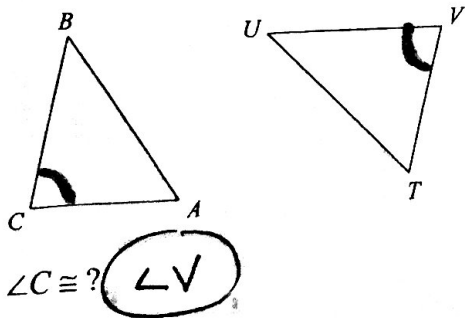
$\overline{QP} \cong \overline{KL}$ - Given
H \overline{QP} & \overline{KL} are hypotenuses



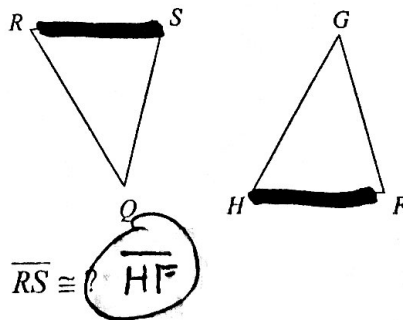
L $\overline{KR} \cong \overline{RP}$ or
 $\overline{QR} \cong \overline{RL}$

Complete each congruence statement by naming the corresponding angle or side.

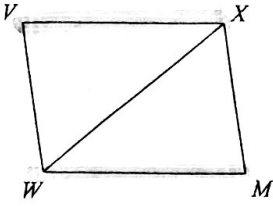
19) $\triangle CBA \cong \triangle VUT$



20) $\triangle SQR \cong \triangle FGH$

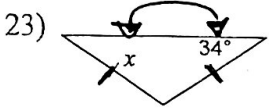


21) $\triangle XWV \cong \triangle WXM$



$\overline{VX} \cong ? \overline{MW}$

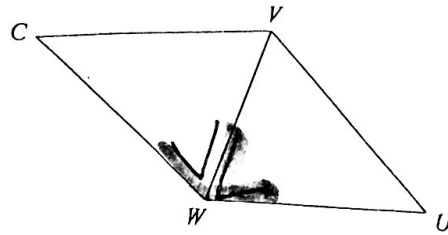
Find the value of x .



If 2 sides are the same the 2 angles are the same

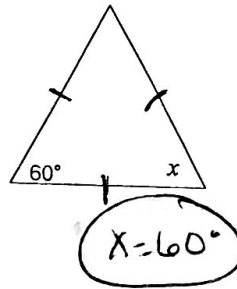
$x = 34^\circ$

22) $\triangle WYU \cong \triangle WYC$



$\angle UWV \cong ? \angle CWV$

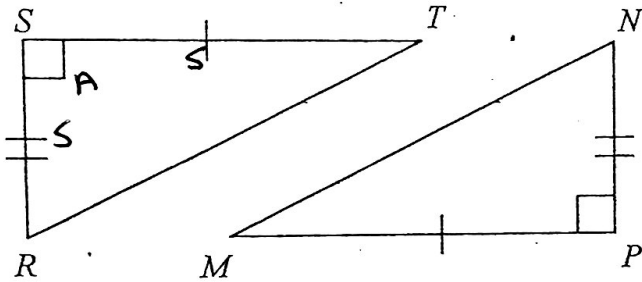
24)



3 sides the same means 3 angles are the same $\hat{=}$ 60°

$x = 60^\circ$

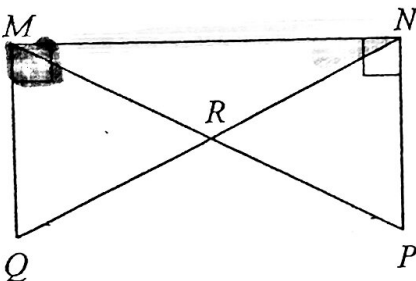
25. Which postulate can be used to prove that $\triangle MPN \cong \triangle TSR$?



SAS

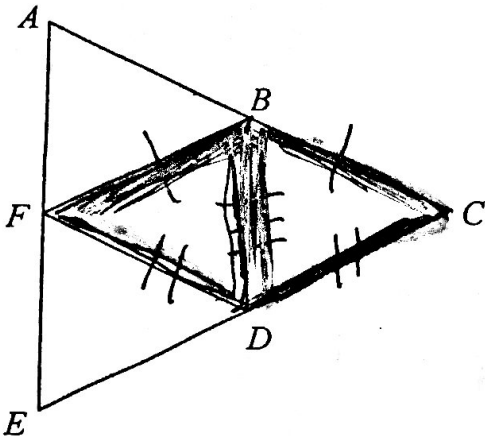
26. Which postulate can be used to prove that $\triangle QMN \cong \triangle PNM$ if $\angle MNQ \cong \angle NMP$?

Right \angle 's
 $\angle M \cong \angle N$



ASA

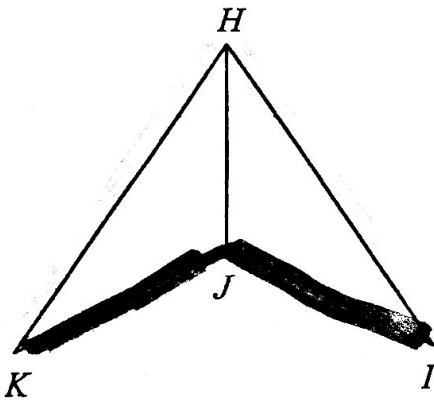
27. Which postulate can be used to prove that $\triangle FBD \cong \triangle CBD$ if $\overline{FB} \cong \overline{CB}$ and $\overline{FD} \cong \overline{CD}$?



$$\overline{BD} \cong \overline{BD} \quad S$$

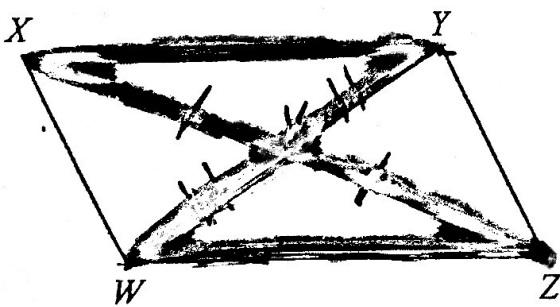
SSS

28. Which parts must be congruent to prove that $\triangle HJK \cong \triangle HJI$ by the SSS postulate?



$$\overline{KH} \cong \overline{HI} \quad \text{and} \quad \overline{KJ} \cong \overline{IJ}$$

29. Which postulate can be used to prove that $\triangle XVY \cong \triangle ZVW$ if V is the midpoint of \overline{XZ} and \overline{YW} ?



$$\begin{aligned} \overline{XV} &\cong \overline{VZ} \\ \angle XVY &\cong \angle WYZ \\ \overline{WV} &\cong \overline{VY} \end{aligned}$$

SAS