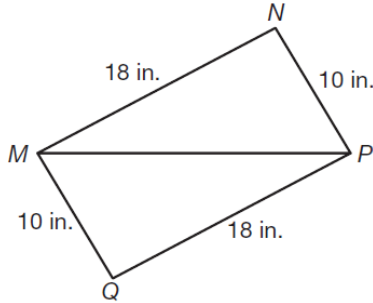


5.4 ~ Triangle Congruence Theorems

Identify what corresponding angles and/or sides you know to be congruent. Use this to determine whether there is enough information to prove that each pair of triangles are congruent. Explain your reasoning. If the triangles can be proven congruent, what congruence theorem would be used?

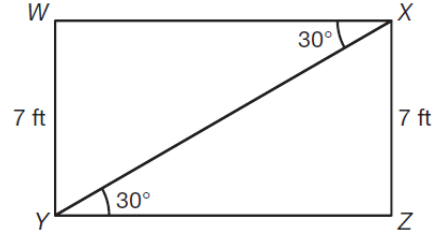
1. $\triangle MNP \cong \triangle PQM$?



KNOW TO BE \cong

$\triangle S \cong ?$ EXPLAIN.

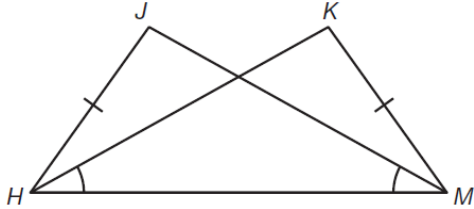
2. $\triangle WXY \cong \triangle ZYX$?



KNOW TO BE \cong

$\triangle S \cong ?$ EXPLAIN.

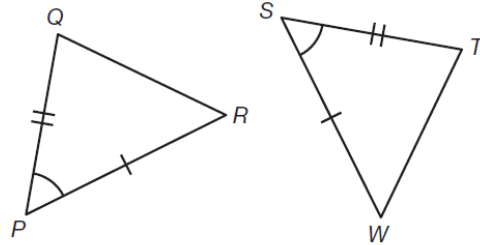
3. $\triangle HJM \cong \triangle MKH$?



KNOW TO BE \cong

$\triangle S \cong ?$ EXPLAIN.

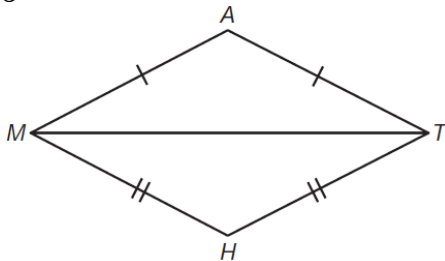
4. $\triangle PQR \cong \triangle STW$?



KNOW TO BE \cong

$\triangle S \cong ?$ EXPLAIN.

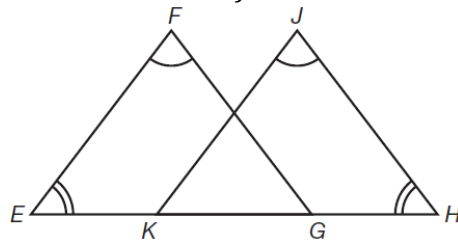
5. $\triangle MAT \cong \triangle MHT$?



KNOW TO BE \cong

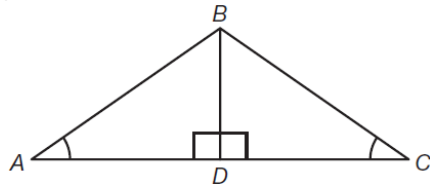
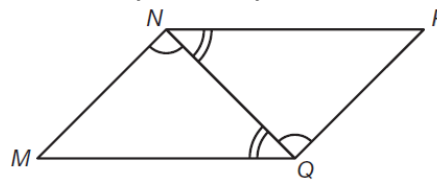
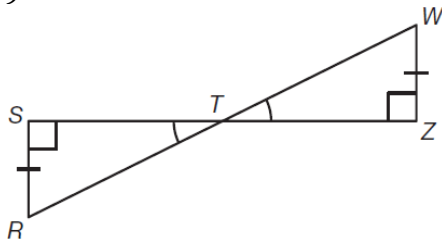
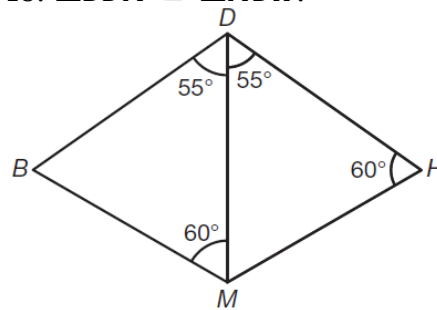
$\triangle S \cong ?$ EXPLAIN.

6. $\triangle EFG \cong \triangle HJK$?



KNOW TO BE \cong

$\triangle S \cong ?$ EXPLAIN.

7. $\triangle ABD \cong \triangle CBD$?KNOW TO BE \cong $\triangle S \cong$? EXPLAIN.8. $\triangle MNQ \cong \triangle PQN$?KNOW TO BE \cong $\triangle S \cong$? EXPLAIN.9. $\triangle RST \cong \triangle WZT$?KNOW TO BE \cong $\triangle S \cong$? EXPLAIN.10. $\triangle BDM \cong \triangle MDH$?KNOW TO BE \cong $\triangle S \cong$? EXPLAIN.11. Given: $\triangle NEW \cong \triangle CAR$, $EN = 11$, $AR = 2x - 4y$, $NW = x + y$, $CA = 4x + y$, $EW = 10$

- Find the values of x and y .
- Find CR .
- Classify $\triangle NEW$ by its angles.

12. Given: $\triangle ABC \cong \triangle XYZ$, $AB = (15 - 4y)$, $m\angle ACB = 47^\circ$, $XY = (3y + 1)$, $m\angle XZY = (2x - 3)^\circ$
Find the values of x and y .13. Given: $\triangle ABD \cong \triangle JMK$, $m\angle A = (2x + 14)^\circ$, $m\angle J = (3x - 15)^\circ$, $m\angle KMJ = 49^\circ$
Find x and $m\angle D$.