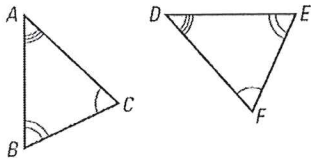


Homework (Th) - Congruent Polygons

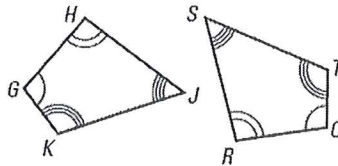
Name: Key

Identify all pairs of congruent corresponding parts. Then write a different congruence statement than what is already given for the figures.

1. $\triangle ABC \cong \triangle DEF$



2. $GHJK \cong QRST$



Segments	Angles
$AB \cong DE$	$\angle A \cong \angle D$
$BC \cong EF$	$\angle B \cong \angle E$
$AC \cong DF$	$\angle C \cong \angle F$

Segments	Angles
$GH \cong QR$	$\angle G \cong \angle Q$
$HJ \cong RS$	$\angle H \cong \angle R$
$JK \cong ST$	$\angle J \cong \angle S$
$GK \cong QT$	$\angle K \cong \angle T$

Congruence Statement: *all ready above*

Congruence Statement:

Complete each statement using the diagram provided.

3. $\angle P \cong \angle T$

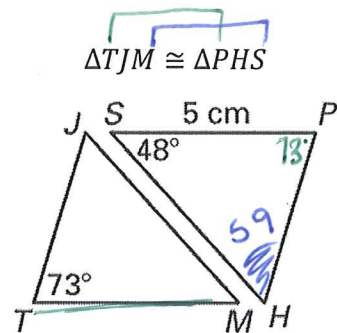
4. $\overline{JM} \cong \overline{HS}$

5. $m\angle M = 48^\circ$

6. $m\angle P = 73^\circ$

7. $MT = 5\text{cm}$

8. $\triangle HPS \cong \triangle JTM$



9. $m\angle Y = 124^\circ$

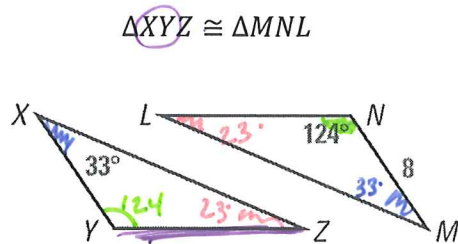
10. $m\angle M = 33^\circ$

11. $YX = 8$

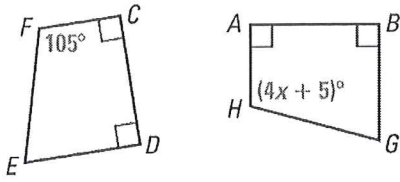
12. $\overline{YZ} \cong \overline{NL}$

13. $\triangle LNM \cong \triangle ZYX$

14. $\triangle YXZ \cong \triangle NML$



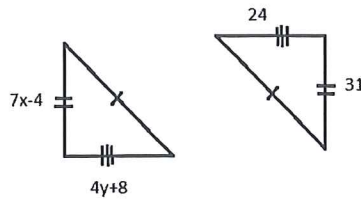
15. $EFCD \cong GHAB$



$x = \underline{25}$

$\angle H \cong \angle F$
 $4x + 5 = 105$
 $x = 25$

16.

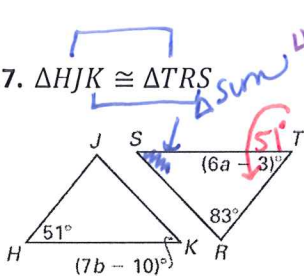


$x = \underline{4}$
 $y = \underline{5}$

$4y + 8 = 24$
 $y = 4$
 $7x - 4 = 31$
 $x = 5$

must show work

17. $\triangle HJK \cong \triangle TRS$

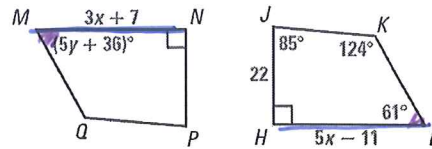


$a = \underline{9}$
 $b = \underline{8}$

$6a - 3 = 51$
 $6a = 54$
 $a = 9$

$\angle K \cong \angle S$
 $7b - 10 = 46$
 $b = 8$

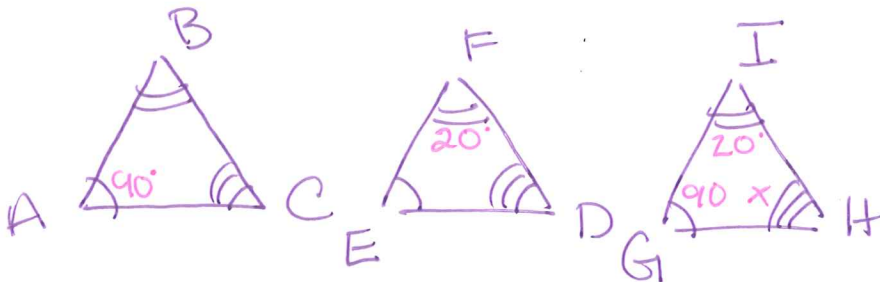
18. $MNPQ \cong LHJK$



$x = \underline{9}$
 $y = \underline{5}$

$3x + 7 = 5x - 11$
 $18 = 2x$
 $9 = x$
 $5y + 36 = 61$
 $5y = 25$
 $y = 5$

19. Suppose $\triangle ABC \cong \triangle EFD$, $\triangle EFD \cong \triangle GIH$, $m\angle A = 90^\circ$, and $m\angle F = 20^\circ$. What is $m\angle H$?



$\angle H = 70^\circ$

If students don't draw they need to have an explanation.