Name_____ Date _____ Class _____

Corresponding Parts of Congruent Figures are Congruent

Practice and Problem Solving: A/B

1. If $\triangle KLM \cong \triangle GHI$, list all of the pairs of congruent angles and sides of the figures.

_____ ≅ _____ _____ ≅ _____

_____ ≅ _____ _____ ≅ _____

_____ ≅ _____ _____ ≅ _____

Quadrilateral *ABCD* ≅ quadrilateral *EFGH*. In quadrilateral *ABCD*, $AB = 16$, $BC = 5w + 7$, $m\angle C = (2z - 1)°$, and $m\angle D = 50°$. In quadrilateral *EFGH*, $EF = 3y + 1$, $FG = 8$, $m\angle G = 80°$, and $m\angle H = (2x)°$. Find the value of the indicated variable.

2. Find the value of *w*.

3. Find the value of *x*.

4. Find the value of *y*.

5. Find the value of *z*.

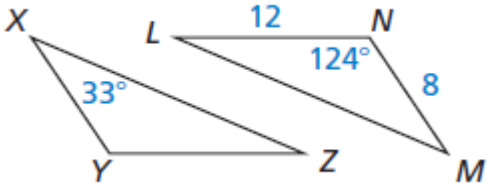
In Exercises 6 – 9, $\triangle XYZ \cong \triangle MNL$.

6. $m\angle Y =$_____

7. $m\angle M =$ _____

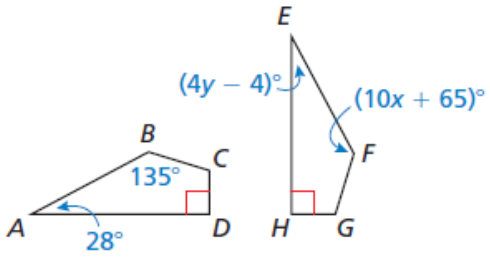
8. $m\angle Z =$_____

9. $XY =$ _____

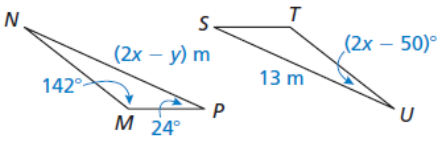


In Exercises 10 and 11, find the values of *x* and *y*.

10. $ABCD \cong EFGH$



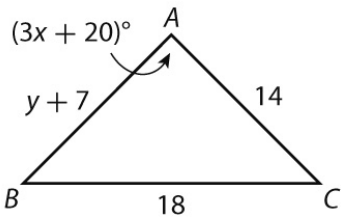
11. $\triangle MNP \cong \triangle TUS$

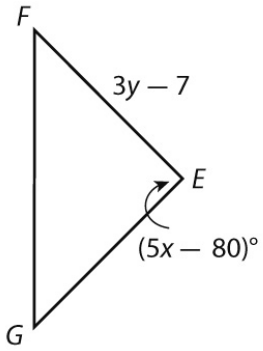


If $\triangle ABC \cong \triangle EFG$, determine if each statement is True or False. If false, explain why.

12. The measure of $\angle A$ is 45°.

13. The perimeter of $\triangle EFG$ is 32.





14. The longest side of $\triangle EFG$ is $\overline{FE}$.