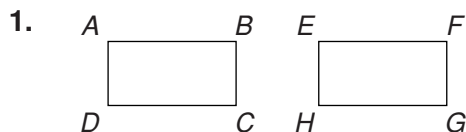
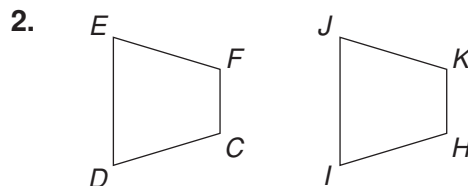


**CHAPTER**  
**8** **At-Home Practice**  
**Congruence and Transformations**

Write a congruence statement for each pair of polygons.



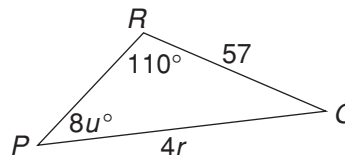
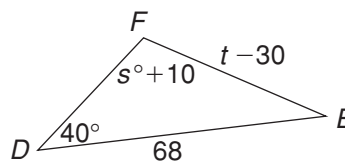
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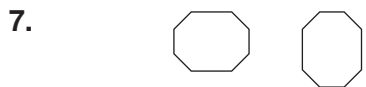
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In the figure, triangle  $DEF \cong$  triangle  $PQR$ .  
Find the value of the variable.

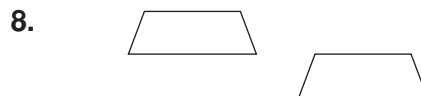
3. Find  $r$ . \_\_\_\_\_ 4. Find  $s$ . \_\_\_\_\_  
5. Find  $t$ . \_\_\_\_\_ 6. Find  $u$ . \_\_\_\_\_



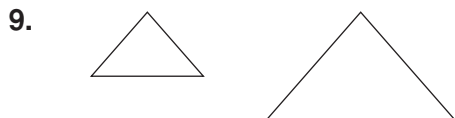
Identify each as a translation, rotation, reflection, or none of these.



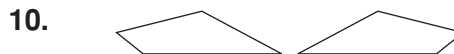
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**Answers:** 1. Rectangle  $ABCD \cong$  Rectangle  $EFGH$  2. Trapezoid  $CDEF \cong$  Trapezoid  $HIJK$  3.  $r = 17$  4.  $s = 100^\circ$  5.  $t = 87$  6.  $u = 5^\circ$  7. rotation 8. translation 9. none of these 10. reflection

**CHAPTER**  
**8** **Family Fun**  
**Transforming Words**

What happens to some words or letters when they undergo a transformation? Which capital letters are symmetrical? Which words can be reflected and still stay the same? Which words change meanings when you rotate them?

**Draw a line of symmetry on the capital letters that are symmetrical.**

**A B C D E F G H I J K L M**  
**N O P R S T U V W X Y Z**

**Find 4 words which can be reflected and not lose their meaning.**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Find 4 words that can be rotated 180° and still be a word.**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Print your name horizontally. Make a horizontal reflection of your name.**

\_\_\_\_\_

**Print your name vertically. Make a vertical reflection of your name.**

\_\_\_\_\_

**Create a secret message in which the only way it can be understood is if it undergoes a transformation.**

\_\_\_\_\_

**Answers:** A B C D E F G H I J K L M N O P Q R S T U V W X Y Z sample: MOM WOW TAT MUM  
sample: MOM/MOW, ON/NO, MOW/MOW, NOON/NOON