

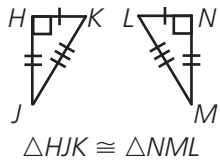
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**Congruent figures** have exactly the same size and shape.



Congruent figures are the same size, so **corresponding parts** are the same.



Corresponding sides have the same length:  
 $HK = NL$     $HJ = NM$     $JK = ML$

Corresponding angles have the same measure:  
 $\angle H = \angle N$     $\angle J = \angle M$     $\angle K = \angle L$

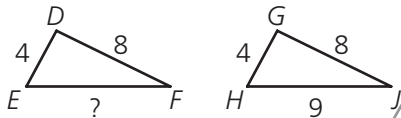
Two figures do **not** have to be in the same position to be congruent.

The symbol  $\cong$  means “is congruent to.”

Tick marks across the sides of congruent figures mean those sides are equal. The sides with the same number of marks have the same length.

Read each problem. Circle the letter of the best answer.

1 The two triangles below are congruent.

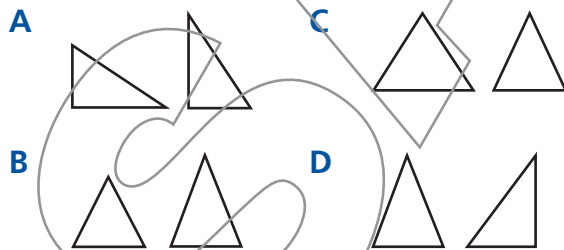


What is the length of side  $EF$ ?

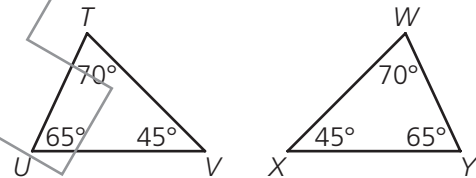
- A 4
- B 5
- C 8
- D 9

Congruent figures have exactly the same shape and size. Since these two triangles are congruent, corresponding sides are the same length:  $DE = GH$  and  $DF = GJ$ , so  $EF = HJ$  and  $HJ = 9$ . The correct answer is D.

2 Which pair of triangles is congruent?



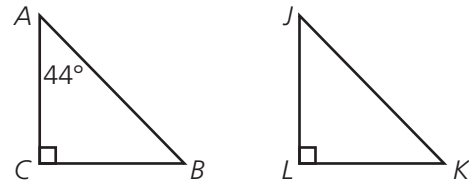
3 The triangles shown below are congruent.



Which statement is true about the triangles?

- A  $\overline{TU} \cong \overline{WX}$
- B  $\overline{UV} \cong \overline{WY}$
- C  $\overline{TV} \cong \overline{WX}$
- D  $\overline{TV} \cong \overline{WY}$

4 Triangle  $ABC \cong$  triangle  $JKL$ .



What is the measure of angle  $K$ ?

- A  $36^\circ$
- B  $44^\circ$
- C  $46^\circ$
- D  $54^\circ$

Read each problem. Write your answers.

5 Triangle  $PQR$  is congruent to triangle  $RSP$ .

A What is the degree measure of  $\angle PRS$ ?

Answer: \_\_\_\_\_

B Explain how you found your answer.

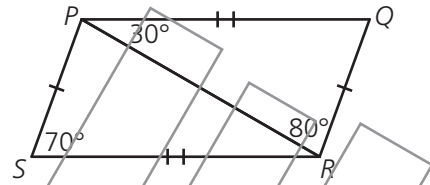
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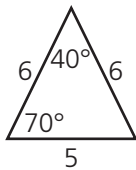
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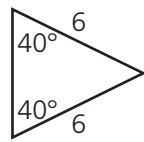
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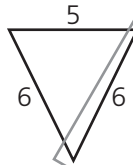
6 Look at these triangles.



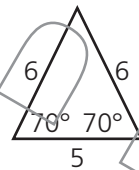
Triangle 1



Triangle 2



Triangle 3



Triangle 4

A Is triangle 1 congruent to triangle 2? Explain your answer.

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B Is triangle 1 congruent to triangle 3? Explain your answer.

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C Is triangle 1 congruent to triangle 4? Explain your answer.

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