

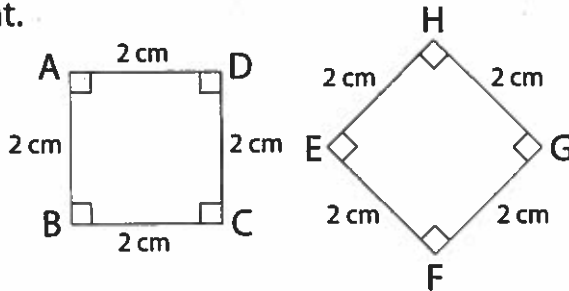
# Congruence in Regular Polygons



## Quick Review

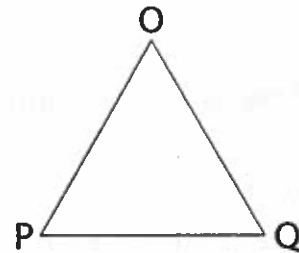
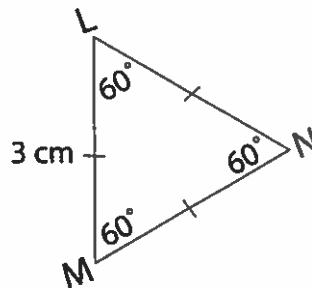
Here are 2 ways to show 2 squares are **congruent**.

- Place one square on top of the other. If they match exactly, they are congruent.
- Compare the side and angle measures. If all sides are equal and all angles are equal, the squares are congruent.

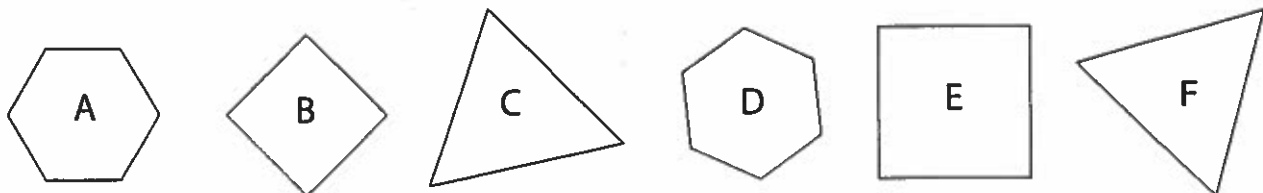


## Try These

1. Triangles LMN and OPQ are congruent. Write the measure of each angle and the length of each side in OPQ.



2. Which of these polygons are congruent? Explain how you know.



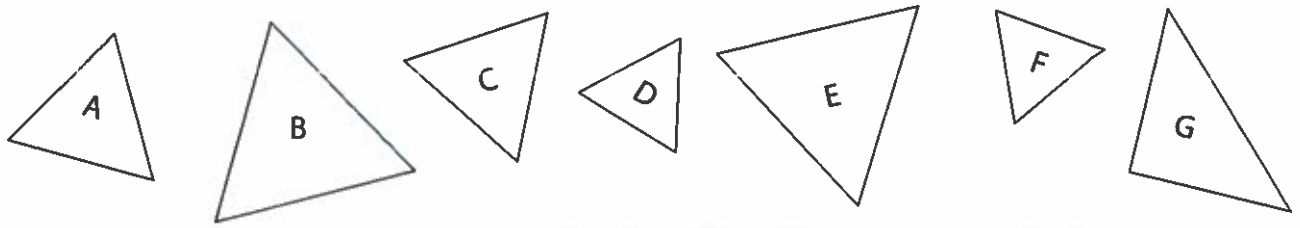

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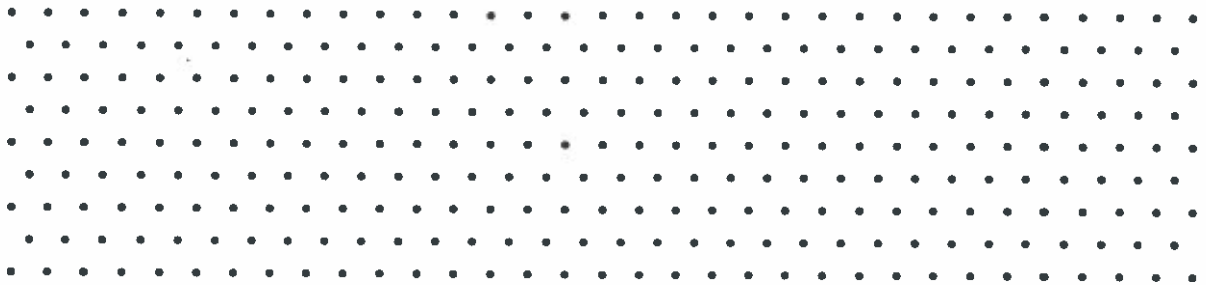
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## Practice

1. Find pairs of congruent triangles. Join each pair with a line.

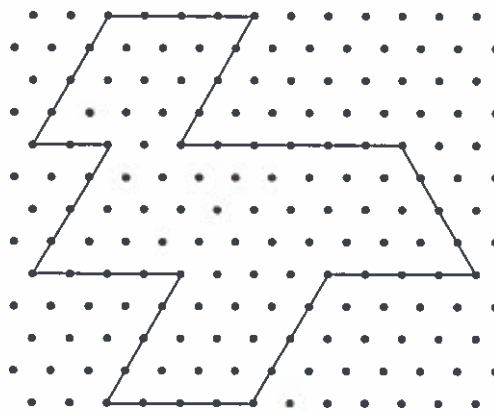


2. Draw 3 congruent regular triangles.  
Label the angle measures and side lengths of each.



## Stretch Your Thinking

Draw lines to divide this shape into 9 congruent triangles.



# Similar Figures

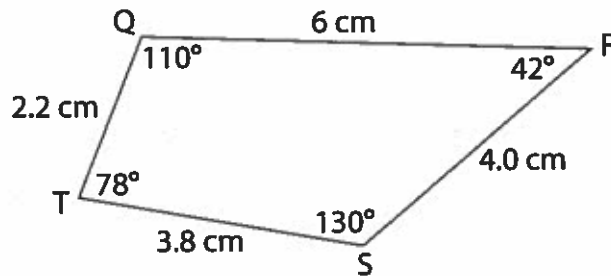
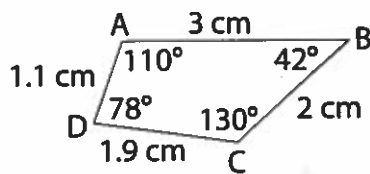


## Quick Review

These figures are similar.

We say: ABCD is similar to QRST.

We write:  $ABCD \sim QRST$



Each side of Figure QRST is 2 times the length of the corresponding side of Figure ABCD.

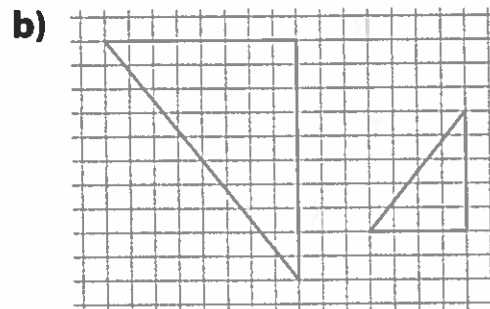
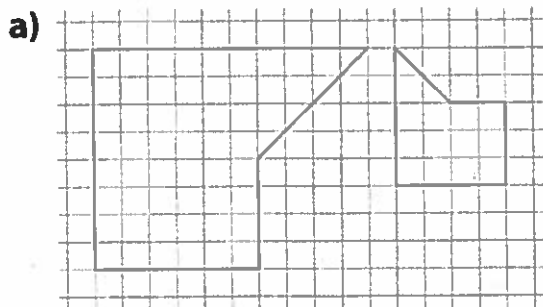
Each angle in Figure QRST is equal to the corresponding angle in Figure ABCD.

Any 2 figures are similar if:

- their corresponding angles are equal *and*
- the side lengths of one figure multiplied by the same number are equal to the corresponding side lengths of the other figure

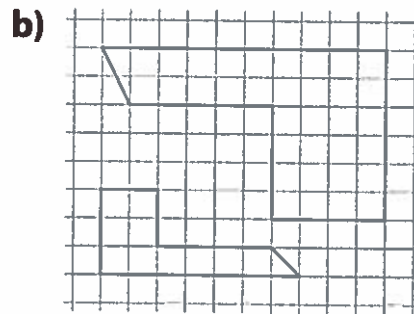
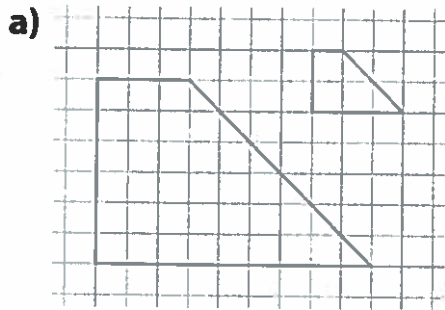
## Try These

1. Are the figures similar?

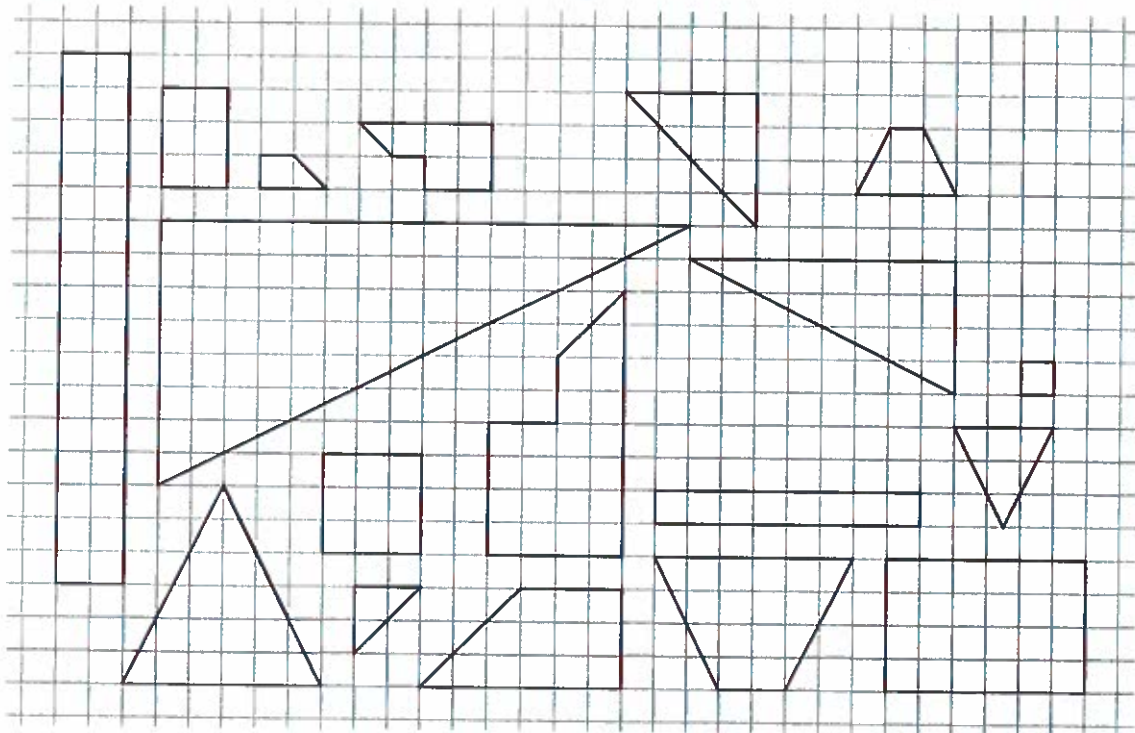


## Practice

1. Are the figures similar?



2. Find a pair of similar figures. Label each figure with an A. Continue to find pairs of similar figures. Label each pair with a different letter.



## Stretch Your Thinking

A rectangle measures 5 m by 8 m.

A similar rectangle has a side measurement of 40 m.

What is the other side measurement of the larger rectangle?

Find two possible answers. \_\_\_\_\_