Today's Materials

- device
- pencil
- notebook
- glue

Corresponding Parts and Scale Factors

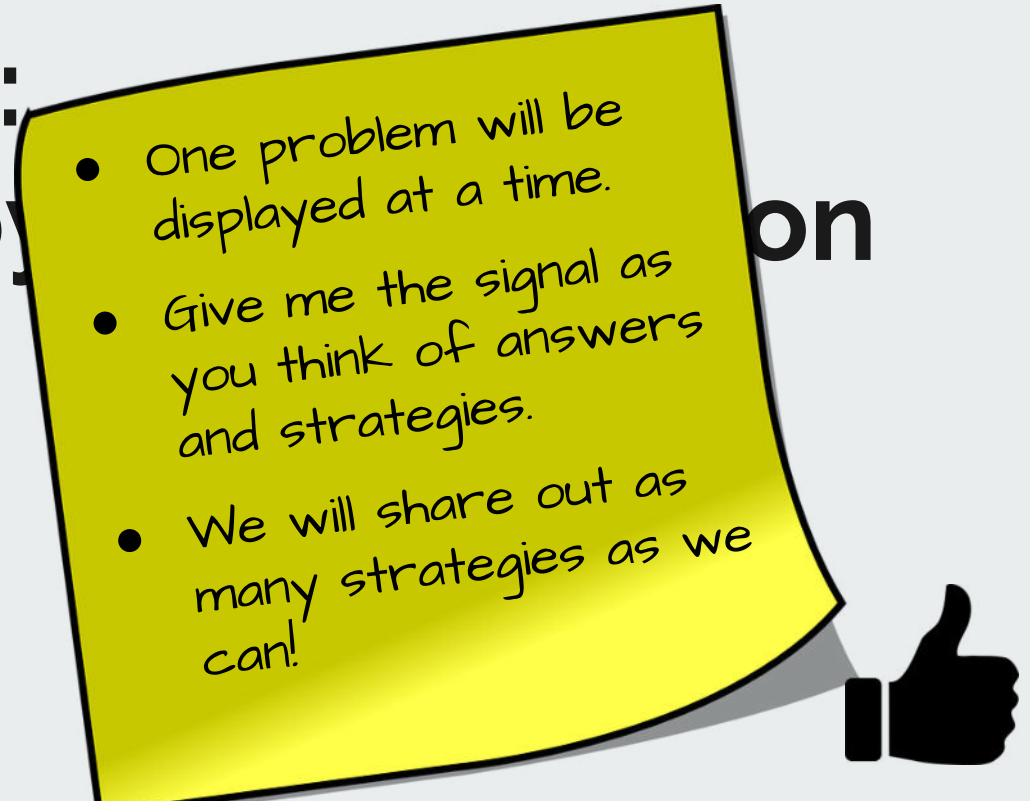
Lesson 2

CCSS Standards: Building on	• 5.NBT.B.7 • 5.NF.B.4
CCSS Standards: Addressing	• 7.G.A.1
CCSS Standards: Building towards	• 7.RP.A.2

Number Talk: Multiplying by ...on

Warm Up 2.1

- Number Talk



Find each product mentally.

$\frac{1}{4} \cdot 32$

$(7.2) \cdot \frac{1}{9}$

$\frac{1}{4} \cdot (5.6)$

Let’s describe features of scaled copies!

Corresponding Parts

Activity 2.2

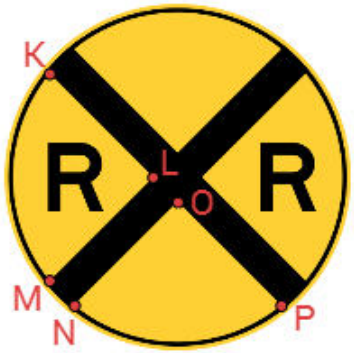
- Notice and Wonder

In this lesson,
we will look more closely at copies of figures and describe specific parts in them.

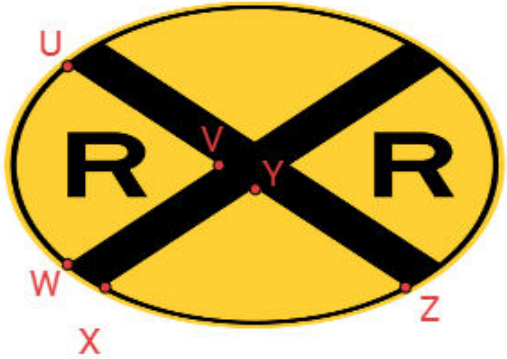
What do you notice?
What do you wonder?

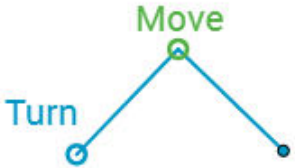
Corresponding Parts:

- ➔ The X-pattern going across each figure
- ➔ The curved outline of each figure
- ➔ The points **K** in the original sign, **A** in Copy 1, and **U** in Copy 2



Copy 1



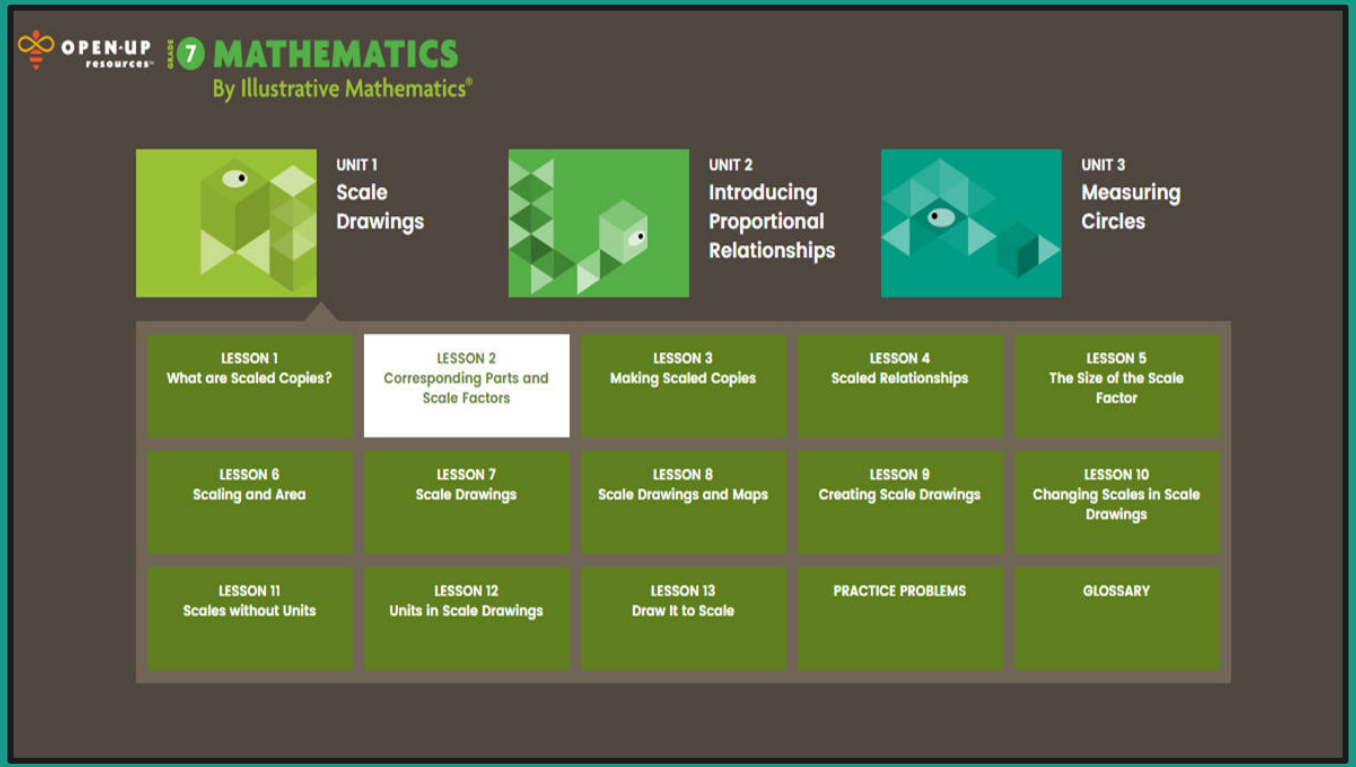


Copy 2

Today, we'll investigate

→ Unit 1: Scale Drawings

→ Lesson 2: Corresponding Parts and Scale Factors

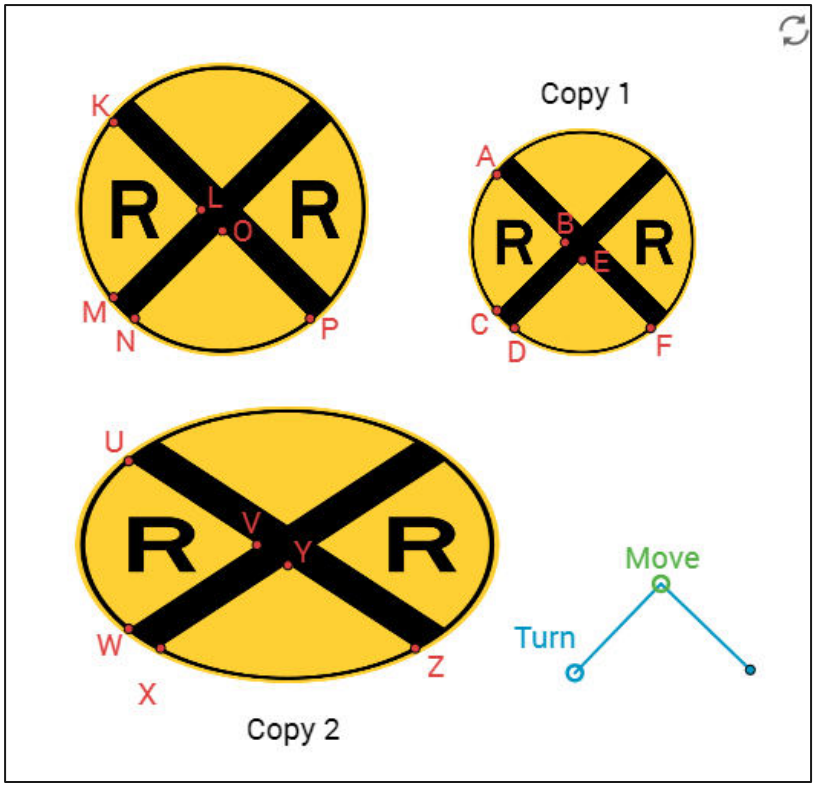


One road sign for railroad crossings is a large X in the middle and 2 R's.

Here is a picture with some points labeled and two copies of the picture.

Use Quiet Think Time (3 min.) to complete Questions 1-2.

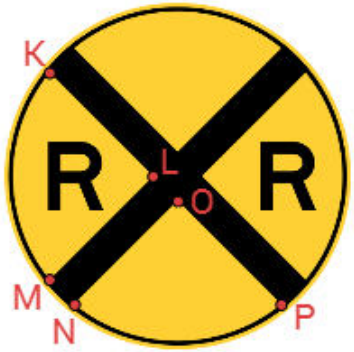
Share your thoughts with your team!



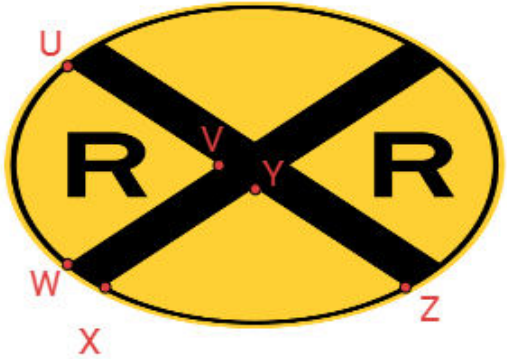
Name a set of corresponding points, segments, or angles.

Is either copy a scaled copy of the original sign?

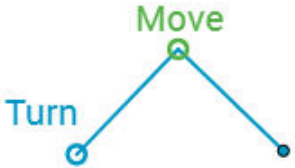
Complete Questions 3 & 4 on your own.



Copy 1

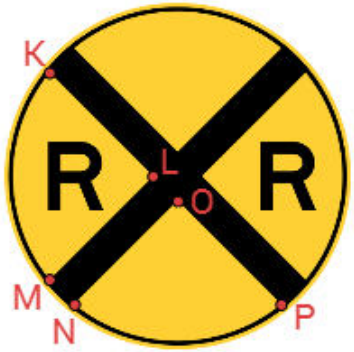


Copy 2

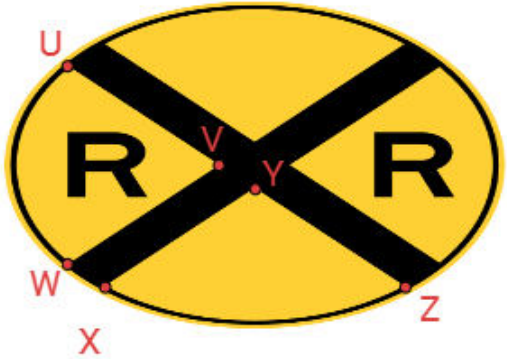


In the scaled copy, Copy 1, did the size of any angle change compared to its corresponding angle in the original sign?

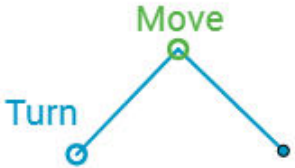
In Copy 2, did the size of angle change? Which ones?



Copy 1

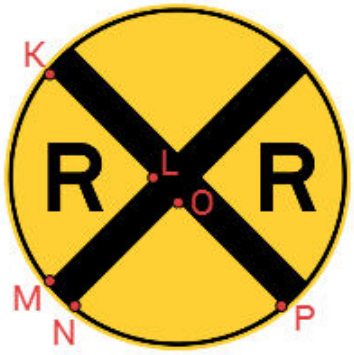


Copy 2

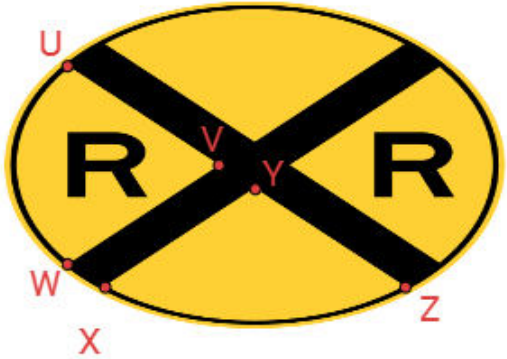


What can you say about the corresponding angles in 2 figures that are scaled copies?

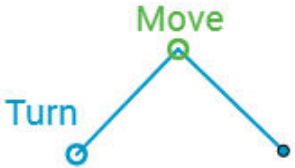
What can you say about corresponding angles in 2 figures that are **not** scaled copies?



Copy 1



Copy 2



Scaled Triangles

Activity 2.3

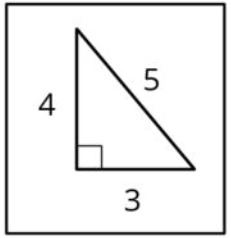
Think Pair Share

Each team member will be given two triangles to look at.

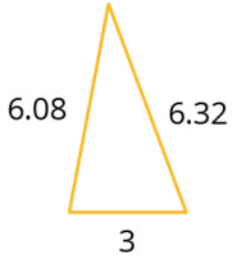
- A and E
- B and F
- C and G
- D and H

Work on your own to determine if your triangles are scaled copies of the original triangle. (2 min.)

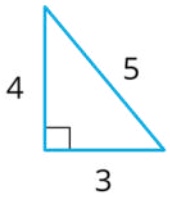
O



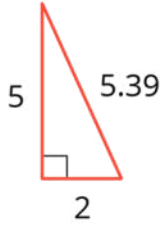
A



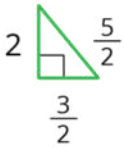
B



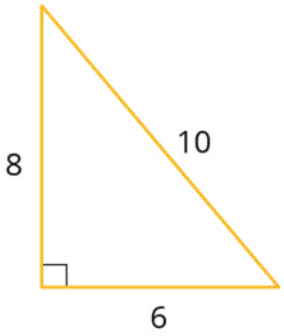
C



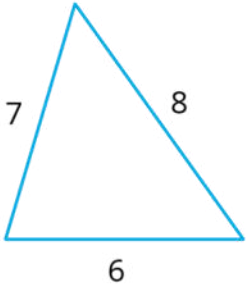
D



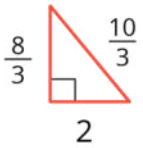
E



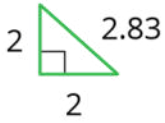
F



G

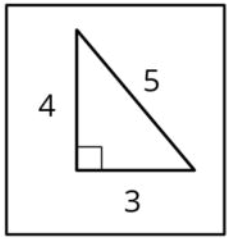


H

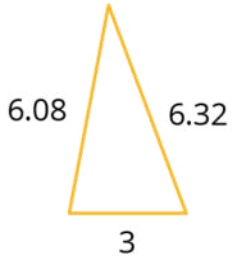


How were you able to tell right away that some figures are not scaled copies?

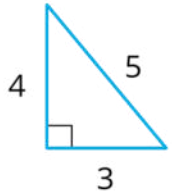
O



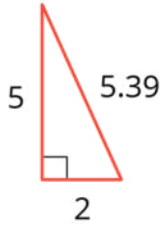
A



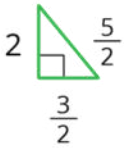
B



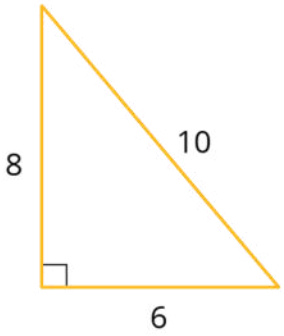
C



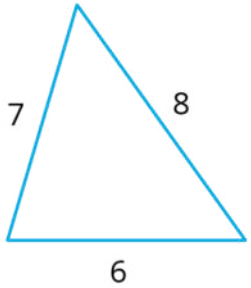
D



E



F



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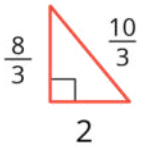
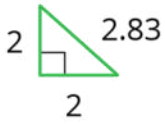


H

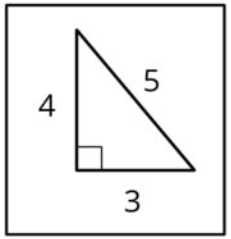


Complete the rest of the questions!

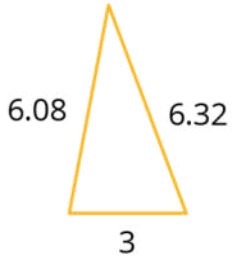
Remember: A, C, F, and H are not scaled copies!

How did you know which sides of the triangle correspond?

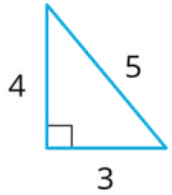
O



A



B



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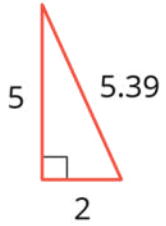
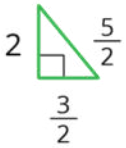
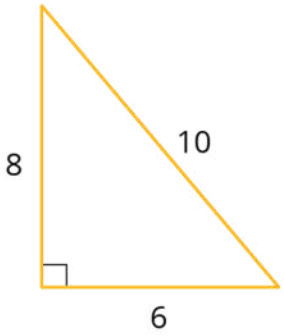


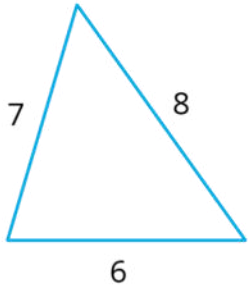
D



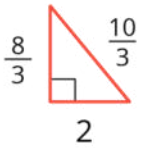
E



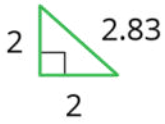
F



G



H



How was each copy scaled from the original?

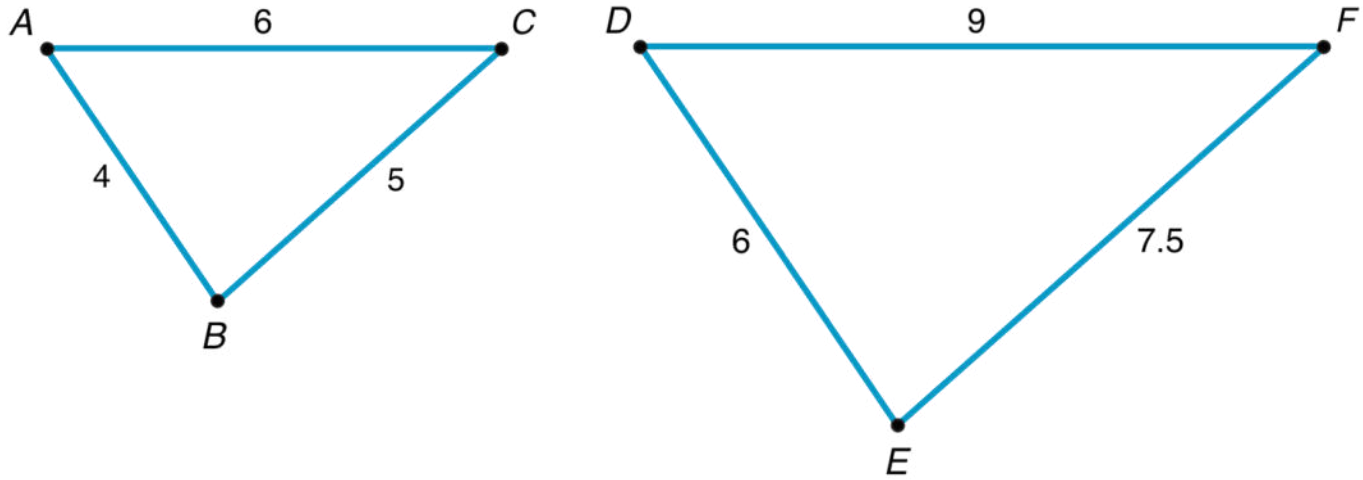
triangle O	3	4	5
triangle B	3	4	5
triangle D	3/2	2	5/2
triangle E	6	8	10
triangle G	2	8/3	10/3

Are you ready for more?

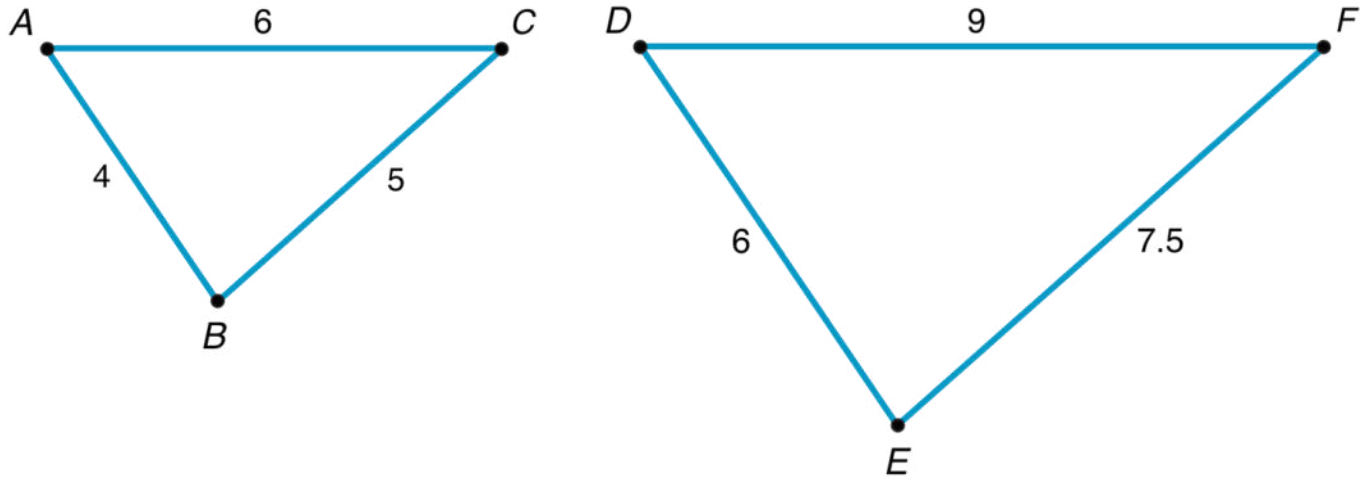
Choose one of the triangles that is not a scaled copy of Triangle O.

Describe how you could change at least one side to make a scaled copy, while leaving at least one side unchanged.

What do we mean by corresponding parts?



What is a scale factor? How does it work?



Today's Goals

- ❏ I can describe what the scale factor has to do with a figure and its scaled copy.
- ❏ In a pair of figures, I can identify:
  - ❏ corresponding points
  - ❏ corresponding segments
  - ❏ corresponding angles

Comparing Polygons *ABCD* and *PQRS*

Cool Down