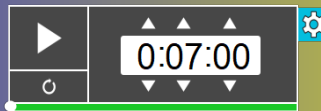


Monday 3/2/20

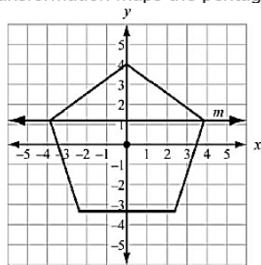


1. Grab Notes, EOC Review Packet
2. Put your phones/earbuds away
3. Warm-Up: Complete #1-5 in EOC Review
4. Congruent Triangles Notes

Jul 31-9:37 PM

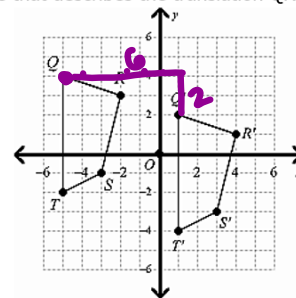
## Warm-Up:

1) A regular pentagon is centered about the origin and has a vertex at (0, 4). Which transformation maps the pentagon to itself?



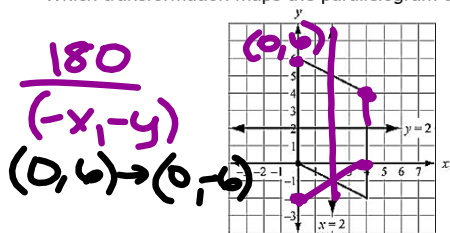
- ~~A. a reflection across line  $m$~~
- ~~B. a reflection across the  $y$ -axis~~
- ~~C. a clockwise rotation of  $100^\circ$  about the origin~~
- D. a clockwise rotation of  $144^\circ$  about the origin

2) What is the rule that describes the translation  $QRST \rightarrow Q'R'S'T'$ ?



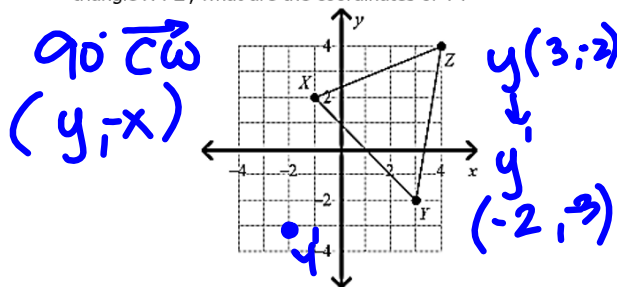
- ~~A.  $(x, y) \rightarrow (x - 6, y + 2)$~~
- ~~B.  $(x, y) \rightarrow (x + 2, y - 6)$~~
- ~~C.  $(x, y) \rightarrow (x - 2, y + 6)$~~
- D.  $(x, y) \rightarrow (x + 6, y - 2)$

3) A parallelogram has vertices at (0, 0), (0, 6), (4, 4), and (4, -2). Which transformation maps the parallelogram to itself?



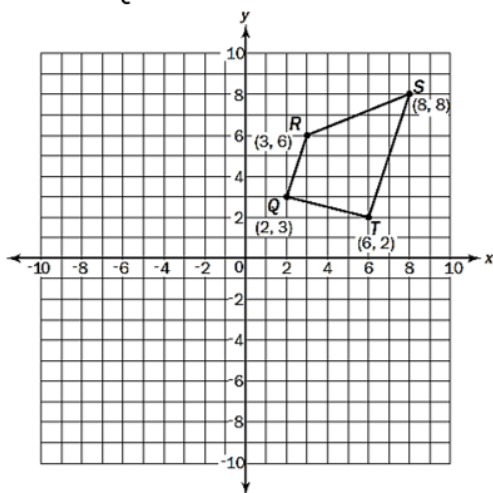
- A. a reflection across the line  $x = 2$
- B. a reflection across the line  $y = 2$
- C. a rotation of  $180^\circ$  about the point (2, 2)**
- D. a rotation of  $180^\circ$  about the point (0, 0)

4) If triangle XYZ is rotated  $90^\circ$  clockwise about the origin to form triangle X'Y'Z', what are the coordinates of Y'?



- A. (2, -3)
- B. (-2, 3)
- C. (-2, -3)**
- D. (-3, -2)

5) Look at quadrilateral QRST.



270° CW → **90° CCW**  
 $(-y, x)$   
 $R(3, 6) \rightarrow R'(-6, 3)$

What is the image point **R** after a clockwise rotation of 270 degrees about the origin?

- A. (6, -3)
- B. (-3, 6)
- C. (-6, 3)**
- D. (3, -6)

# HW Answers

Aug 23-5:46 PM

**What am I learning today?**

**Learning Objective 2B.2**

How to identify congruent  
triangles.

*Same size/shape*

Jul 31-6:18 PM

## What will I do to show that I have learned it?

I can...Use congruency statements and marks to match corresponding sides and angles in congruent triangles.

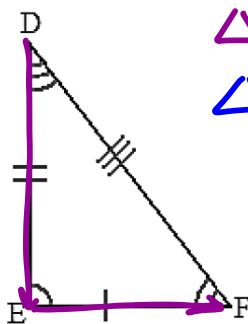
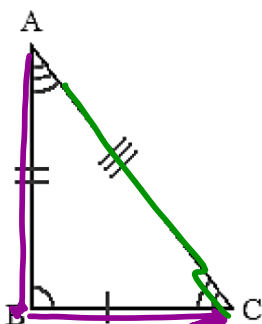
Jul 31-6:18 PM

**Congruent Triangles** - Two triangles that ALL 3 **sides** and **angles** are CONGRUENT!

**Corresponding Parts** - Parts of congruent triangles that "**MATCH**"

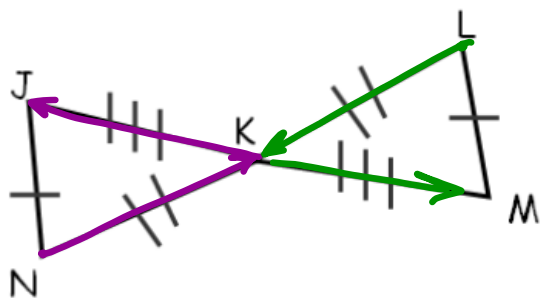
Must follow the **SAME ORDER**

**How can we write three different congruency statements?**



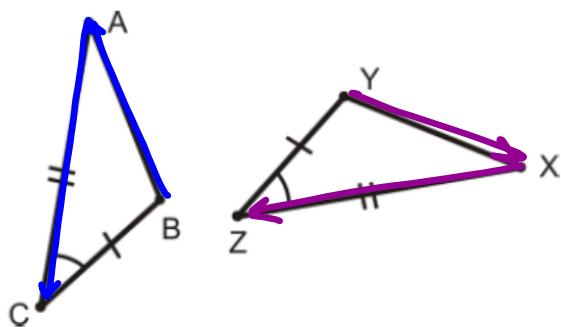
$\triangle ABC \cong \triangle DEF$   
 $\triangle CBA \cong \triangle FED$

Aug 23-5:34 PM

Complete the congruence statement

$$\triangle NKJ \cong \triangle LKM$$

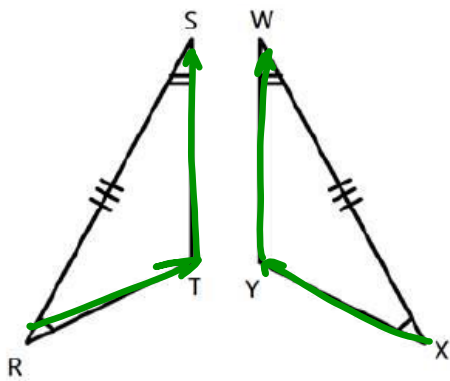
Aug 23-5:39 PM

Complete the congruence statement

$$\triangle YXZ \cong \triangle BAC$$

Aug 23-5:39 PM

## Complete the congruence statement

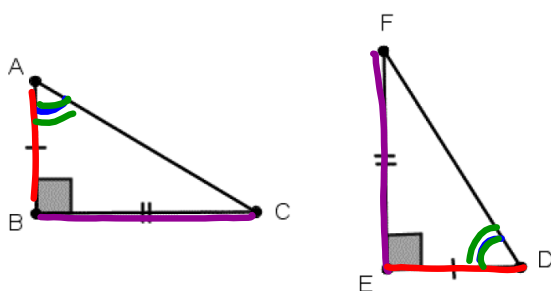


$$\triangle RTS \cong \triangle XYW$$

Aug 23-5:39 PM

### ***Corresponding Parts with Diagrams***

If  $\triangle ABC \cong \triangle DEF$  then...



$$1. BC \cong EF$$

$$2. \angle A \cong \angle D$$

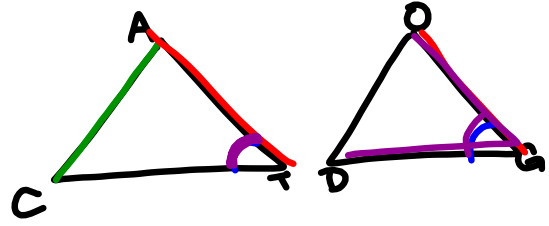
$$3. ED \cong BA$$

$$4. \angle D \cong \angle A$$

Aug 23-5:40 PM

### Corresponding Parts with No Diagrams

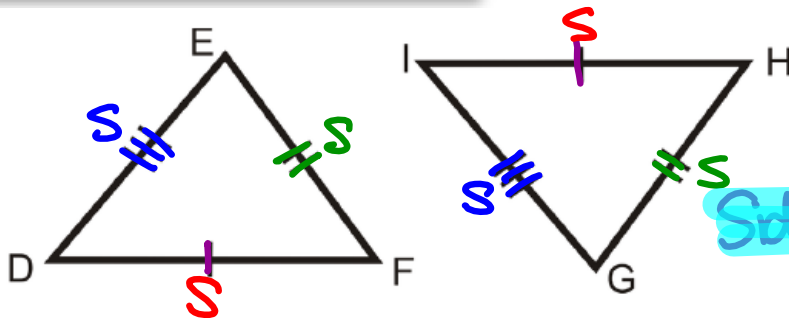
If  $\triangle CAT \cong \triangle DOG$  then...



1.  $AC \cong \overline{OD}$
2.  $\angle T \cong \angle G$
3.  $GO \cong \overline{TA}$
4.  $\angle ATC \cong \angle OGD$

Aug 23-5:40 PM

YOU CANNOT SKIP A SIDE **AND** AN ANGLE AT THE SAME TIME!

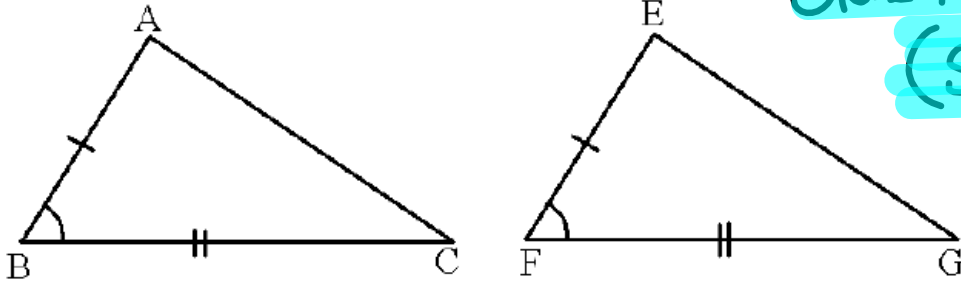


Side-Side-Side (SSS)

$$\triangle EDF \cong \triangle GHI$$

Aug 23-5:40 PM

YOU CANNOT SKIP A SIDE **AND** AN ANGLE AT THE SAME TIME!

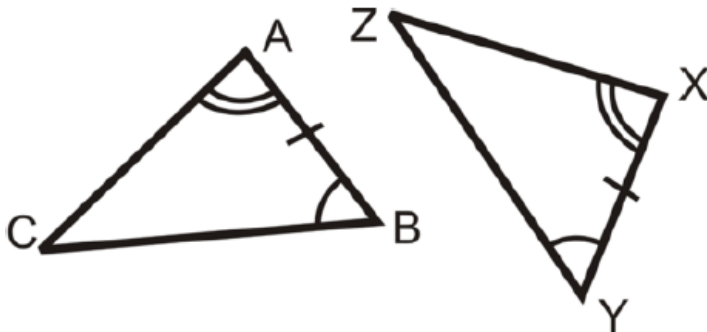


Side-Angle-Side (SAS)

$$\triangle ABC \cong \triangle EFG$$

Aug 23-5:40 PM

YOU CANNOT SKIP A SIDE **AND** AN ANGLE AT THE SAME TIME!

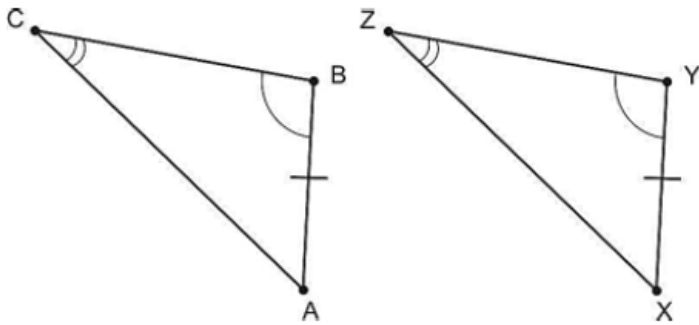


Angle-Side-Angle (ASA)

Aug 23-5:41 PM



YOU CANNOT SKIP A SIDE **AND** AN ANGLE AT THE SAME TIME!

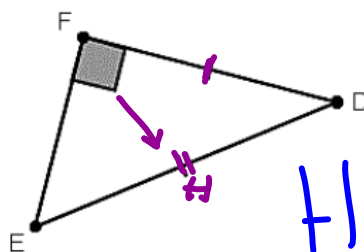
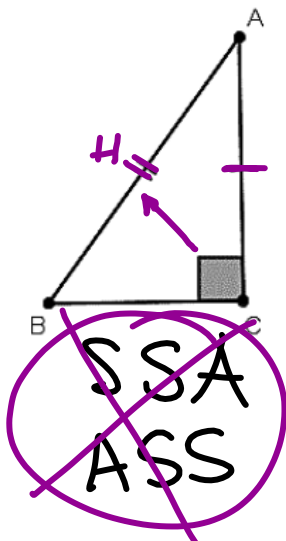


Angle-Angle-Side (AAS)

$$\triangle CBA \cong \triangle ZYX$$

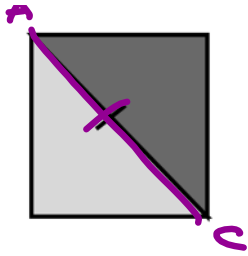
Aug 23-5:41 PM

YOU CANNOT SKIP A SIDE **AND** AN ANGLE AT THE SAME TIME!



Hypotenuse-Leg (HL)  
★ RIGHT Δ'S.

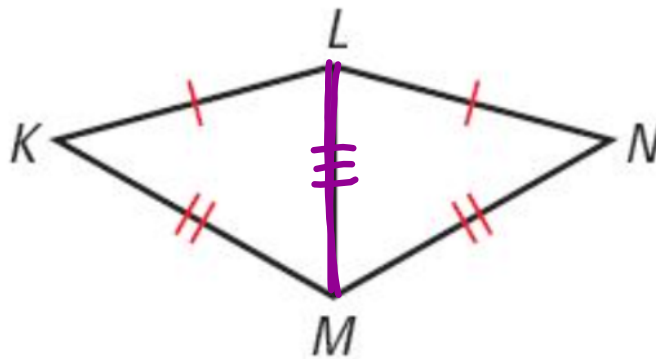
Aug 23-5:41 PM



### Share a side

Reason: Reflexive  
Property

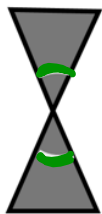
**How are these triangles congruent?**



Yes, by SSS

$$\triangle LKM \cong \triangle LNM$$

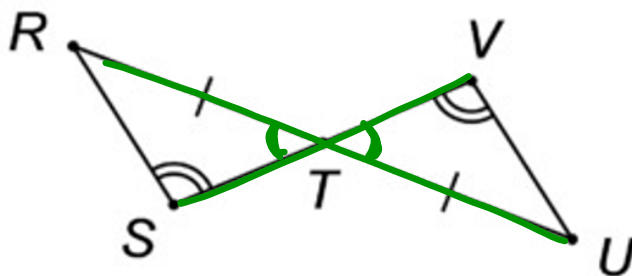
Feb 13-5:45 PM



### Vertical Angles

Reason: Vertical Angles are congruent

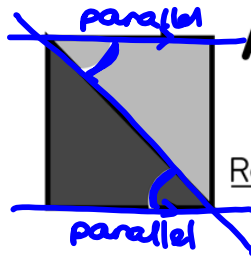
**How are these triangles congruent?**



Yes, by AAS  
(SAA)

$$\triangle STR \cong \triangle VTU$$

Feb 13-5:45 PM

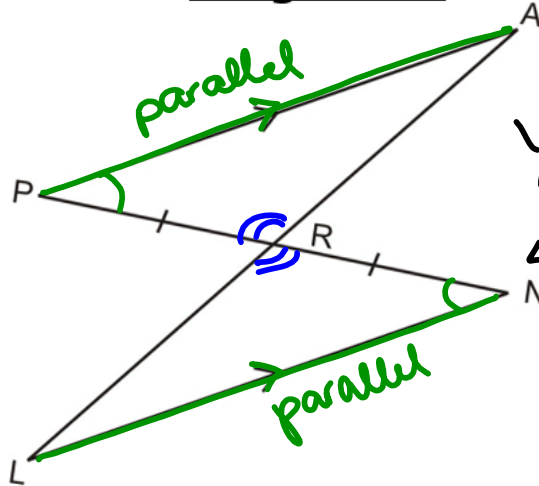


### Alternate Interior Angles

*parallel sides*

Reason: Alt. Int. angles are congruent

### How are these triangles congruent?



Yes, by ASA  
 $\triangle PRA \cong \triangle NRL$

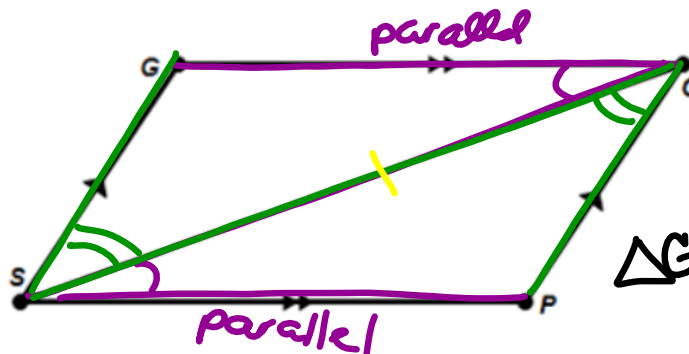
Feb 13-5:45 PM



### Alternate Interior Angles

Reason: Alt. Int. angles are congruent

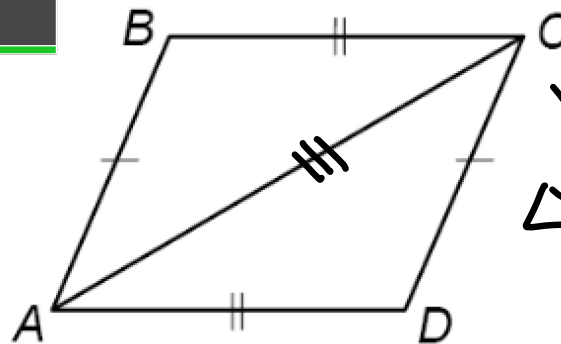
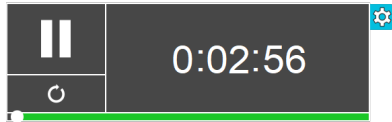
### How are these triangles congruent?



Yes, by ASA  
 $\triangle GSC \cong \triangle PCS$

Feb 13-5:46 PM

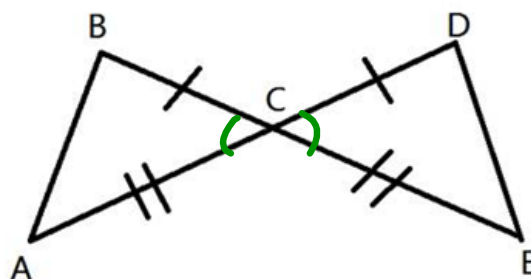
**Are these triangles congruent?  
If so, write a congruence statement.**



Yes, by SSS  
 $\triangle BCA \cong \triangle DAC$

Aug 23-5:42 PM

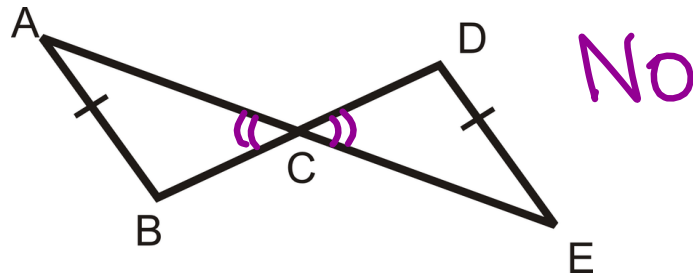
**Are these triangles congruent?  
If so, write a congruence statement.**



Yes, by SAS  
 $\triangle ABC \cong \triangle EDC$

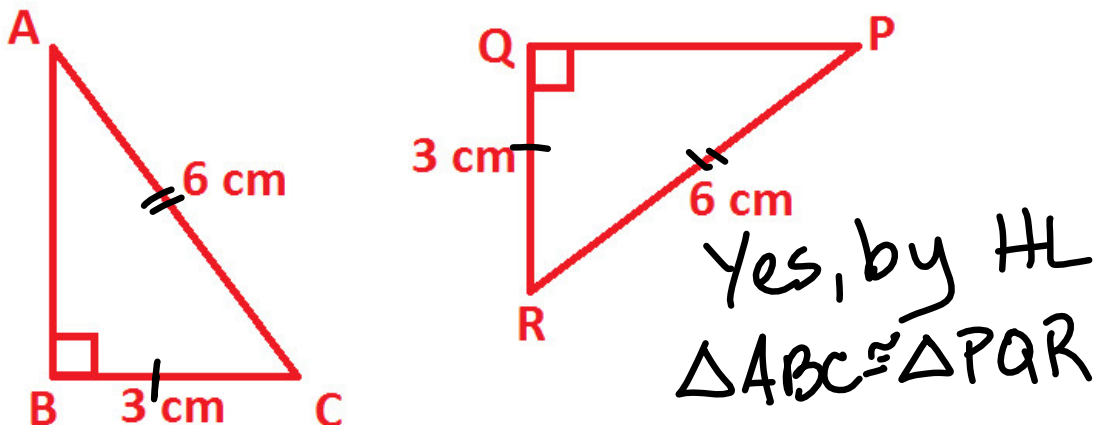
Aug 23-5:44 PM

Are these triangles congruent?  
If so, write a congruence statement.



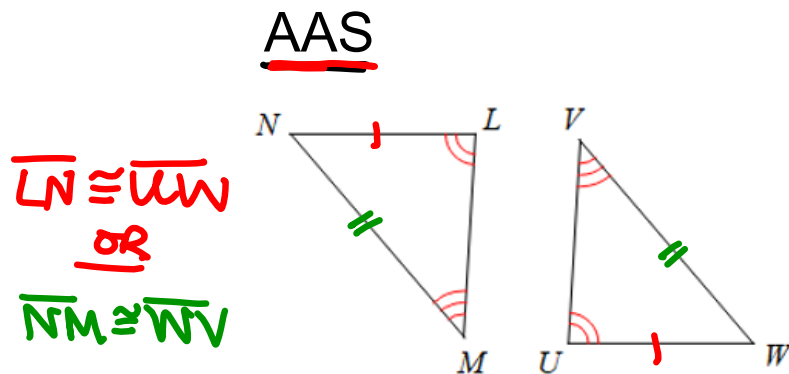
Aug 23-5:45 PM

Are these triangles congruent?  
If so, write a congruence statement.



Aug 23-5:44 PM

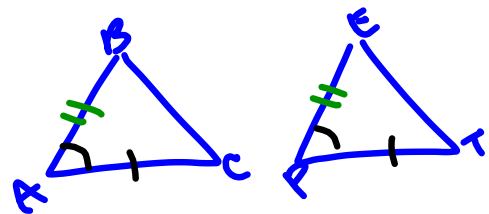
State what **ADDITIONAL** information is required in order to know the triangles are congruent for the reason given.



Feb 14-2:22 PM

State what **ADDITIONAL** information is required in order to know the triangles are congruent for the reason given.

$\triangle ABC \cong \triangle PET$  by SAS



$$\angle A \cong \angle P$$

$$AC \cong PT$$

$$\overline{BA} \cong \overline{EP}$$

Feb 14-2:23 PM

**Classwork:**

Complete the classwork about congruent triangles.

**HW:** Finish classwork

Jul 31-9:12 PM