## Lesson 3.3.2: SSS Triangle Congruence Postulate

Included angle: the angle between two sides of a triangle Included side: the side common to two angles of a triangle SSS (Side-Side) Congruence Postulate: If the three sides of one triangle are congruent to the corresponding sides of another triangle, then the two triangles are congruent.

#### Practice Exercises 3.3.2

A. Given  $\triangle ABC$ , determine the included angle between each pair of sides.

1.  $\overline{AB}$  and  $\overline{AC}$ 

2.  $\overline{AB}$  and  $\overline{BC}$ 3.  $\overline{AC}$  and  $\overline{BC}$ 

Given  $\land NOD$ , determine the included angle between each pair of sides.

4.  $\overline{NO}$  and  $\overline{OD}$ 

5.  $\overline{NO}$  and  $\overline{ND}$ 

6.  $\overline{OD}$  and  $\overline{ND}$ 

B. Given  $\triangle ABC$ , determine the included side between each pair of angles.

1.  $\angle A$  and  $\angle B$ 

2.  $\angle A$  and  $\angle C$ 

3.  $\angle B$  and  $\angle C$ 



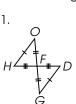
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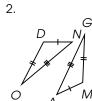
4.  $\angle N$  and  $\angle O$ 

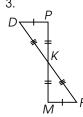
5.  $\angle N$  and  $\angle D$ 

6.  $\angle O$  and  $\angle D$ 

C. Show that each pair of triangles are congruent using the SSS triangle congruence postulate.







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1. /A and /B

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3.  $\angle B$  and  $\angle C$ 

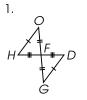
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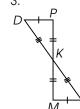
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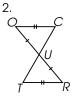
C. Show that each pair of triangles are congruent using the SSS triangle congruence postulate.







D. The figures are marked with their congruent parts. Determine the other congruent parts using the SSS congruence postulate.





### Activity 3.3.2

A. Given  $\triangle EFG$ , determine the included angle between each pair of sides.

1.  $\overline{EF}$  and  $\overline{FG}$ 

2.  $\overline{FG}$  and  $\overline{EG}$ 

3.  $\overline{EG}$  and  $\overline{EF}$ 

Given  $\triangle NOD$ , determine the included angle between each pair of sides.

4.  $\overline{NO}$  and  $\overline{OD}$ 

5.  $\overline{NO}$  and  $\overline{ND}$ 

6.  $\overline{OD}$  and  $\overline{ND}$ 

B. Given  $\triangle ABC$ , determine the included side between each pair of angles.

1. /A and /B

2. /A and /C

3. /B and /C

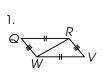
Given  $\triangle SAD$ , determine the included side between each pair of angles.

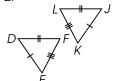
4.  $\angle S$  and  $\angle A$ 

5.  $\angle S$  and  $\angle D$ 

6.  $\angle A$  and  $\angle D$ 

C. Show that each pair of triangles are congruent using the SSS triangle congruence postulate.

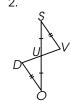






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3.  $\overline{EG}$  and  $\overline{EF}$ 

Given  $\triangle NOD$ , determine the included angle between each pair of sides.

4.  $\overline{NO}$  and  $\overline{OD}$ 

5.  $\overline{NO}$  and  $\overline{ND}$ 

B. Given  $\triangle ABC$ , determine the included side between each pair of angles.

1.  $\angle A$  and  $\angle B$ 

2.  $\angle A$  and  $\angle C$ 

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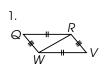
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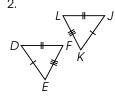
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