

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Rating Score: \_\_\_\_\_

**Activity 1: Choose Me!****Directions:** Read each statement below and write the correct letter on the space before each number:

\_\_\_\_ 1. A sequence of justified conclusions, leading from what is given or known to a final conclusion is called?

- A. Proof  
B. B. One-Step Proof  
C. Two-Column Proof  
D. Given

\_\_\_\_ 2. When a proof has an argument in which there is a given and only one justified conclusion is called?

- A. Proof  
B. B. One-Step Proof  
C. Two-Column Proof  
D. Given

\_\_\_\_ 3. What do you call a form of written proof in which the conclusions are written in one column, the justifications beside them in a second column?

- A. Proof  
B. B. One-Step Proof  
C. Two-Column Proof  
D. Given

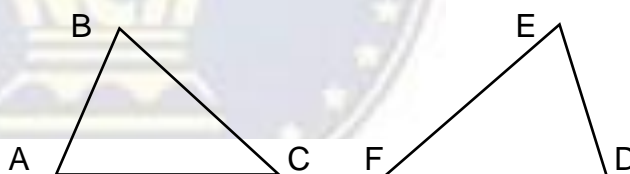
For numbers 4-6 fill-in the blanks with the correct Reasons

Given:  $\overline{AB} \cong \overline{DE}$

$\angle B \cong \angle E$

$\overline{BC} \cong \overline{EF}$

Prove:  $\triangle ABC \cong \triangle DEF$



Statements	Reasons
1. $\overline{AB} \cong \overline{DE}$	1. Given
2. $\angle B \cong \angle E$	4.
3. $\overline{BC} \cong \overline{EF}$	5.
4. $\triangle ABC \cong \triangle DEF$	6.

\_\_\_\_ 7. In  $\triangle ABC$ ,  $\angle B = (2x + 30)^\circ$ ,  $\angle A = 55^\circ$  and  $\angle C = 65^\circ$ , what is the value of x?

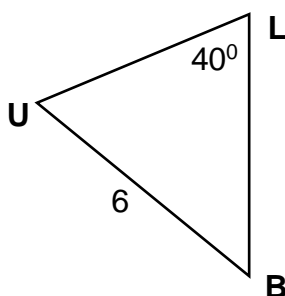
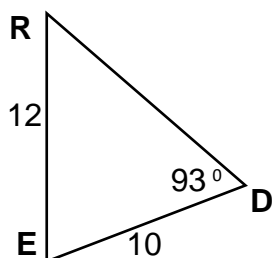
- A.  $10^\circ$       B.  $15^\circ$       C.  $20^\circ$       D. 25

**Specific Week:** Week 5, 6 and 7**Target Competency:** Solves corresponding parts of congruent triangles (M8GE-IIIg-1), proves two triangles are congruent (M8GE-IIIg-1) and proves statements on triangle congruence (M8GE-IIIh-1).**Note to the Teacher:** This LAS was created by the writer to let the students learn more about on how to solve corresponding parts of congruent triangles, proves two triangles are congruent, and proves statements on triangle congruence. You may refer your students to LM pages 358 – 365 to answer the LAS.

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## Activity 2: Identify Me!

If  $\triangle RED \cong \triangle BLU$ , complete the congruence statement or find the indicated measure:  
Write your answer in the blank provided before each number.



- \_\_\_ 8. What is the measure of  $\angle E$ ?  
A.  $40^\circ$       B.  $93^\circ$       C.  $47^\circ$       D.  $57^\circ$
- \_\_\_ 9. How about the measure of  $\angle B$ ?  
A.  $40^\circ$       B.  $93^\circ$       C.  $47^\circ$       D.  $57^\circ$
- \_\_\_ 10.  $\angle B$  is congruent to what angle?  
A.  $\angle E$       B.  $\angle L$       C.  $\angle R$       D.  $\angle D$
- \_\_\_ 11.  $\angle E$  is congruent to what angle?  
A.  $\angle B$       B.  $\angle L$       C.  $\angle R$       D.  $\angle D$
- \_\_\_ 12. The measure of  $\overline{UL}$  is?  
A. 10      B. 12      C. 6      D. 22
- \_\_\_ 13. What is the measure of  $\overline{RD}$ ?  
A. 10      B. 12      C. 6      D. 22
- \_\_\_ 14.  $\overline{UL}$  is congruent to what line segment?  
A.  $\overline{DE}$       B.  $\overline{BU}$       C.  $\overline{RD}$       D.  $\overline{LB}$
- \_\_\_ 15.  $\overline{RD}$  is congruent to what line segment?  
A.  $\overline{DE}$       B.  $\overline{BU}$       C.  $\overline{RD}$       D.  $\overline{LB}$

**Specific Week:** Week 5, 6 and 7

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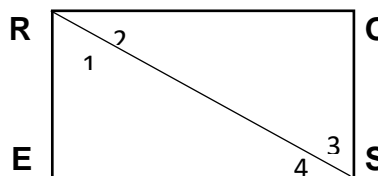
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### Activity 3: Wanna Know More!

A. For numbers 16 – 24, use the given figure below:

Given:  $\overline{RE} \perp \overline{RO}$ ;  $\overline{OS} \perp \overline{ES}$ ;  $\overline{RE} \parallel \overline{OS}$

Prove:  $\triangle RES \cong \triangle SOR$



Choose the given statements/reasons and write the letter of the correct answer in the blank.

- A. Given
- B. B. 1,2
- C. C. 2,4
- D.  $\overline{SR}$
- E. If the exterior sides of two adjacent angles are perpendicular, then the angles are complementary
- F. Complements of congruent angles are congruent
- G. Reflexive Property of Congruence
- H. ASA Postulate

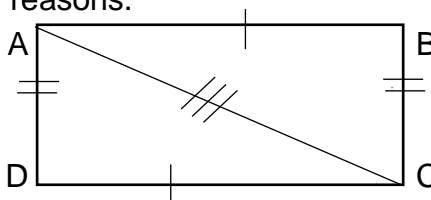
Statements	Reasons
1. $\overline{RE} \parallel \overline{OS}$	16.
2. $\angle \underline{\hspace{1cm}} \cong \angle \underline{\hspace{1cm}}$ 17. <u>                    </u>	2. If $\parallel$ lines have a transversal, the alternate interior angles are $\cong$ .
3. $\overline{RE} \perp \overline{RO}$ ; $\overline{OS} \perp \overline{ES}$	18.
4. $\angle 1$ and $\angle 2$ are complementary $\angle 3$ and $\angle 4$ are complementary	19.
5. $\angle \underline{\hspace{1cm}} \cong \angle \underline{\hspace{1cm}}$ 20. <u>                    </u> Why?	21.
6. $\overline{RS} \cong \underline{\hspace{1cm}}$ 22. <u>                    </u> Why?	23.
7. $\triangle RES \cong \triangle SOR$	24.

B. Fill in the blanks with the correct reasons.

Given:  $\overline{AB} \cong \overline{CD}$

$\overline{BC} \cong \overline{DA}$

Prove:  $\triangle ABC \cong \triangle CDA$



Statements	Reasons
1. $\overline{AB} \cong \overline{CD}$ , $\overline{BC} \cong \overline{DA}$	25.
2. $\overline{AC} \cong \overline{AC}$	26.

**Specific Week:** Week 5, 6 and 7

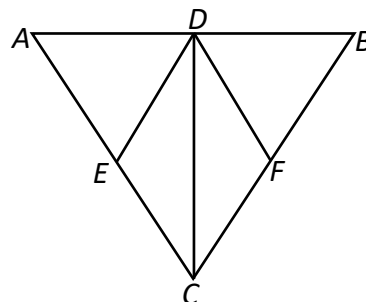
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C. Given:  $\overline{CD}$  is the perpendicular bisector of  $\overline{AB}$ ;  $\overline{CD}$  bisects  $\angle EDF$ .

Prove:  $\overline{DE} \cong \overline{DF}$



Using the given figure above, complete the reasons by choosing the letter of the correct answer.

- |                                 |                                   |
|---------------------------------|-----------------------------------|
| A. Given                        | F. SAS postulate                  |
| B. Definition of Bisect         | G. Definition of Perpendicular    |
| C. Definition of midpoint       | H. All right angles are congruent |
| D. Reflexive Property           | I. CPCTC                          |
| E. Definition of angle bisector | J. ASA Theorem                    |

Statements	Reasons
1. $\overline{CD}$ is the perpendicular bisector of $\overline{AB}$ ; $\overline{CD}$ bisects $\angle EDF$ .	28.
2. D is the midpoint of $\overline{AB}$	29.
3. $\overline{AD} \cong \overline{BD}$	30.
4. $\angle ADC$ and $\angle BDC$ are right angles	31.
5. $\angle ADC \cong \angle BDC$	32.
6. $\overline{DC} \cong \overline{DC}$	33.
7. $\triangle ADC \cong \triangle BDC$	34.
8. $\angle DCA \cong \angle DCB$	35.
9. $\angle EDC \cong \angle FDC$	36.
10. $\triangle DCE \cong \triangle DCF$	37.
11. $\overline{DE} \cong \overline{DF}$	38.

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Validator: **KRYSTELLE R. DUMLAO**

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