

Name \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_

## Unit 14 Review – Part 2: Proofs

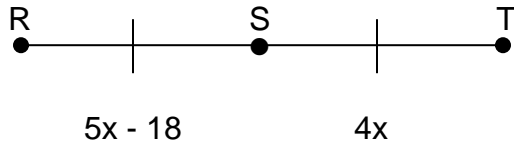
Use the Word Bank and write the LETTER for the justification for each step.

$\frac{m}{-5} + 3 = -4.5$	<b>Statements</b>	<b>Reasons</b>
	$\frac{m}{-5} + 3 = -4.5$	1.
	$\frac{m}{-5} = -7.5$	2.
	$m = 37.5$	3.
$-47 = 3x - 59$	<b>Statements</b>	<b>Reasons</b>
	$-47 = 3x - 59$	4.
	$12 = 3x$	5.
	$4 = x$	6.

WORD BANK FOR REVIEW QUESTIONS – **Write the LETTER**

(Letters may be used more than once)

- |                                     |                          |
|-------------------------------------|--------------------------|
| A. Given                            | B. Simplify              |
| C. Addition Property                | D. Subtraction Property  |
| E. Multiplication Property          | F. Division Property     |
| G. Substitution Property            | H. Distributive Property |
| I. Angle Addition Postulate         |                          |
| J. Segment Addition Postulate       |                          |
| K. Definition of Midpoint           |                          |
| L. Definition of Congruent Segments |                          |
| M. Definition of Supplementary      |                          |
| N. Linear Pair Theorem              |                          |



Statements	Reasons
$5x - 18 = 4x$	7.
$5x = 4x + 18$	8.
$X = 18$	9.

**WORD BANK FOR REVIEW QUESTIONS – Write the LETTER**

(Letters may be used more than once)

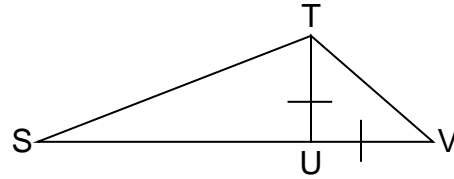
- A. Given
- B. Simplify
- C. Addition Property
- D. Subtraction Property
- E. Multiplication Property
- F. Division Property
- G. Substitution Property
- H. Distributive Property
- I. Angle Addition Postulate
- J. Segment Addition Postulate
- K. Definition of Midpoint
- L. Definition of Congruent Segments
- M. Definition of Supplementary
- N. Linear Pair Theorem

**Geometric Proof**

Fill in the blanks to complete the two-column proof.

**Given:**  $\overline{TU} \cong \overline{UV}$

**Prove:**  $SU + TU = SV$



**Two-column proof:**

Statements	Reasons
$\overline{TU} \cong \overline{UV}$	10.
$TU = UV$	11.
$SU + UV = SV$	12.
$SU + TU = SV$	13.

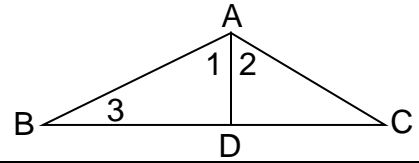
**WORD BANK FOR REVIEW QUESTIONS – Write the LETTER**

(Letters may be used more than once)

- A. Given                      B. Simplify
- C. Addition Property              D. Subtraction Property
- E. Multiplication Property              F. Division Property
- G. Substitution Property              H. Distributive Property
- I. Angle Addition Postulate
- J. Segment Addition Postulate
- K. Definition of Midpoint
- L. Definition of Congruent Segments
- M. Definition of Supplementary
- N. Linear Pair Theorem

Write a two-column proof for the following problem.

Given:  $\overline{AD}$  bisects  $\angle BAC$ .  $\angle 1 \cong \angle 3$



Prove:  $\angle 2 \cong \angle 3$

Statements	Reasons
$\overline{AD}$ bisects $\angle BAC$	14.
$\angle 1 \cong \angle 3$	15.
$\angle 1 \cong \angle 2$	16.
$\angle 2 \cong \angle 3$	17.

WORD BANK FOR REVIEW QUESTIONS – **Write the LETTER**

(Letters may be used more than once)

- A. Given
- B. Simplify
- C. Addition Property
- D. Subtraction Property
- E. Multiplication Property
- F. Division Property
- G. Substitution Property
- H. Distributive Property
- I. Angle Addition Postulate
- J. Segment Addition Postulate
- K. Definition of Angle Bisector
- L. Definition of Congruent Segments
- M. Definition of Supplementary
- N. Linear Pair Theorem