BASIC 7

WEEKLY LESSON PLAN – WEEK 5

Strand:	Algebra		Sub-Strand:		Algebraic Expressions	
Content Standard:	B7.2.2.1 Simplify algebraic expressions involving the four basic operations and substituting values to evaluate algebraic expressions.					
Indicator (s)	B7.2.2.1.4 Substitute values to evaluate algebraic expressions. B7.2.1.1.5 Use properties of the four operations to simplify algebraic expressions with rational coefficients.			**Performance Indicator:** learners can identify the four properties of Algebra.		
Week Ending	05-05-2023					
Class	B.S.7	**Class Size:**		**Duration:**		
Subject	Mathematics					
Reference	Mathematics Curriculum, Teachers Resource Pack, Learners Resource Pack, Textbook.					
Teaching / Learning Resources	Charts, Poster, Pictures.		**Core Competencies:**		• Analyze and make distinct judgment about viewpoints expressed in an argument • Ability to effectively define goals towards solving a problem	

DAYS	PHASE 1 : STARTER	PHASE 2: MAIN	PHASE 3: REFLECTION
MONDAY 01-05-2023	Review Learners knowledge on simplifying expressions	1. Demonstrate on how to simplify expressions by substituting values for variables 2. Assist Learners to substitute values in expressions to evaluate them. 3. Learners brainstorm to find the perimeter and area of the shapes by substituting values in place of variables .	Reflect on how to substitute values to evaluate expressions. **Exercise;** 1. The area of a rectangular fence is 500 square feet. If the width of the fence is 20feet, then find its length. Here the area and the width of the rectangular fence are given. find the length of the fence.

Substituting for a Variable
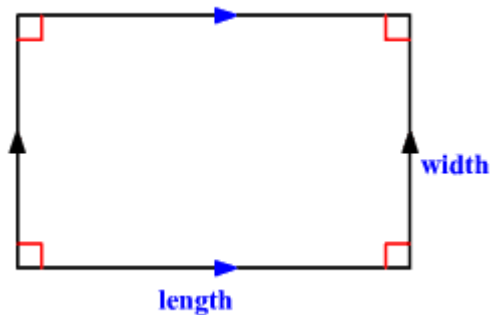
Evaluate $y = x + 3$ when $x = 5$.
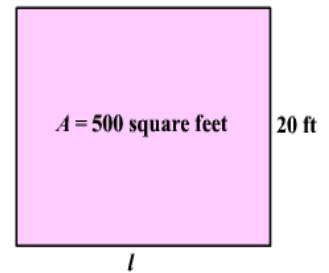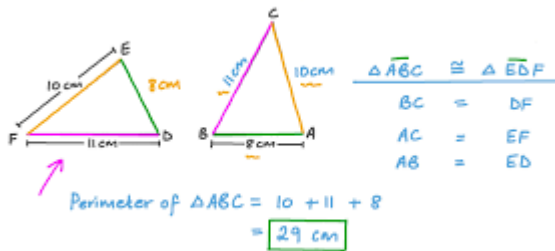
$$y = x + 3$$
$$y = 5 + 3$$
$$y = 8$$

Example 1:

The perimeter of a rectangular pool is 56 meters. If the length of the pool is 16 meters, then find its width. Here the perimeter and the length of the rectangular pool are given. We have to find the width of the pool.

A rectangle is a <u>parallelogram</u> with four right angles. All rectangles are also parallelograms, but not all parallelograms are rectangles.

width

length

Triangles ABC and EDF are congruent. What is the <u>perimeter</u> of △ABC?

$\triangle ABC \cong \triangle EDF$

$BC = DF$
$AC = EF$
$AB = ED$

Perimeter of △ABC = 10 + 11 + 8
= **29 cm**

$A = 500$ square feet   20 ft

l

2. The perimeter of a rectangular pool is 56 meters. If the length of the pool is 16 meters, then find its width.

Here the perimeter and the length of the rectangular pool are given. find the width of the pool.

Perimeter = 56 m

w

16 m
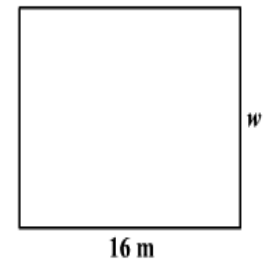
TUESDAY **02-05-2023**	Asist Learners to identify the properties of operations in algebraic expressions.	1. Learners brainstorm to identify the properties of algebraic operations. 2. Demonstrate on using the distributive property to simplify expressions. 3. Assist Learners to simplify expressions using the distributive property with rational coefficients. **DIFFERENT FORMS OF THE DISTRIBUTIVE PROPERTY** If a,b,c are real numbers, then a(b+c) =ab+ac Other form a(b−c)=ab−ac (b+c)a=ba+ca **Property** **Example** Commutative a + b = b + a, a b = b a Associative a + (b + c) = (a + b) + c, a (b c) = (a b) c Identity a + 0 = a, a · 1 = a Inverse a + (− a) = 0, a · 1 a = 1	Through questions and answers, conclude the lesson. **Exercise;** Simplify the following using commutative properties; 1. 3(x+4) 2. 6(5y+1) 3. 3/4(n+12) 4. 2/1(p+4) 5. 14(21//d+7/2)
		4.	
THURSDAY **04-05-2023**	Through questions and answers, review Learners knowledge on the previous lesson.	1. Discuss the commutative property of algebraic expression with the Learners. 2. Assist Learners to simplify algebraic expressions involving the use of commutative properties. 3. Learners brainstorm to compare the distribute and commutative properties of Algebra. COMMUTATIVE PROPERTY BYJU'S $a + b = b + a$ $xy = yx$	Assist Learners to come the four properties of expressing algebraic expression. **REMARKS**

Examples of Commutative Property of Multiplication

- 1 × 2 = 2 × 1 = 2.
- 3 × 8 = 8 × 3 = 24.
- 12 × 5 = 5 × 12 = 60
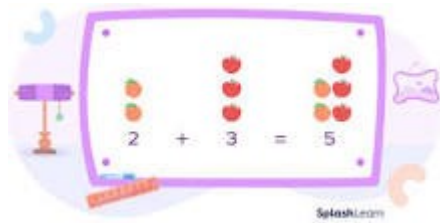
Commutative Property of Addition Examples:

- 15 + 16 = 16 + 15 = 31.
- 4 + (−6) = (−6) + 4 = (−2)
- 0.5 + 0.6 = 0.6 + 0.5 = 1.1.
- 1 5 + 2 5 = 2 5 + 1 2 = 3 5.

Unlike the Associative and Commutative Properties, there are not two versions (one for addition and another for multiplication) of the Distributive Property. Instead, both multiplication and addition occur within the one rule. Since they distributed through the parentheses, this is true by the Distributive Property.

Name of Teacher: *School:*   *District:*