

STUDENT GROUP WORKSHEET

ALGEBRAIC EXPRESSIONS & VARIABLE SUBSTITUTION

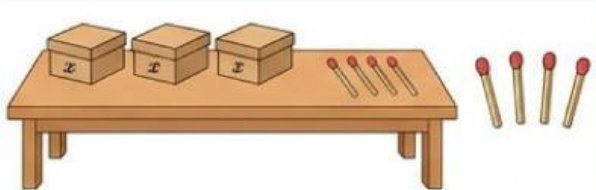
Class:
Group:
Group Members:

Date:

ACTIVITY 1

Read the situation below carefully. Represent the unknown quantities using the variable x and write down the complete algebraic expression!

Budi has 3 closed boxes containing an unknown, equal number of matchsticks, and 4 loose matchsticks outside the boxes.



Let x be the number of matchsticks inside one closed box.

Write the algebraic expression:

ACTIVITY 2

Based on the algebraic expression you derived in Activity 1, identify each of its structural elements in the table below!

Algebraic Element	Your Identification	Explanation / Meaning
Variable		
Coefficient of x		
Constant		
Number of Terms		

ACTIVITY 3

Suppose one box is opened, and you find out the exact number of matchsticks inside it. Calculate the total value using substitution!

If each box turns out to contain 10 matchsticks ($x = 10$), calculate the final value step by step:

$$\begin{aligned}\text{the expression} &= 3x + 4 \\ &= 3(\dots) + 4 \\ &= \dots + 4 \\ &= \dots\end{aligned}$$

Group Reflection:

What did your group learn today about variables, coefficients, constants, and substitution?

Thank You

