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Subject: - Mathematics

Week: - 8 (1st Term)

Grade: - 8

Prepared by- Zonal Education Office Embilipitiya

(Learning Time 2 Hours)

## Algebraic Expressions

5.6 Sum of two algebraic expressions

- Recall what you have learnt in grade 7 about algebraic expressions.
- Give examples for like terms and unlike terms.
- Like terms can be added or subtracted and simplified to a single algebraic term.
- Do the exercise 5.6 by studying the pages No: 60 & 61.

5.7 Simplified the difference of two algebraic expressions

Let us subtract $(a + 6)$ from $(2a + 7)$.

$$\begin{aligned}(2a + 7) - (a + 6) &= 2a + 7 + (-1) \times (a + 6)\\ &= 2a + 7 + (-1) \times a + (-1) \times 6\\ &= 2a + 7 + (-a) + (-6)\\ &= 2a + 7 - a - 6\\ &= 2a - a + 7 - 6\\ &= a + 1\end{aligned}$$

Here, the answer is obtained by multiplying each terms of the algebraic expression is to be subtracted by (-1) and adding them to the first algebraic expression.

- Do the exercise 5.7 by studying the pages no: 61 and 62.

5.8 Substituting given values for each unknown in an algebraic expression up to three unknowns.

- Replacing an unknown term of an algebraic expression by a numerical value is called substitution.
- By substitution, an algebraic expression takes a numerical value.

Let us find the value of the algebraic expression $2p + q - r + 1$ when $p = 4$, $q = 2$ and $r = -3$.

$$\begin{aligned}2p + q - r + 1 &= 2 \times 4 + 2 - (-3) + 1\\ &= 8 + 2 + 3 + 1\\ &= 14\end{aligned}$$

- Do the exercise 5.8 by studying the examples in pages no: 63 and 64.