

Chapter 09

ALGEBRAIC EXPRESSION & IDENTITIES

Identity- I:

$$(a + b)^2 = a^2 + 2ab + b^2$$

Proof:

$$(a + b)^2 = (a + b)(a + b)$$

$$= a(a + b) + b(a + b)$$

($\because$ Multiplication of a Binomial by a Binomial)

$$= a^2 + ab + ba + b^2 \quad (\because \text{By multiply})$$

$$\therefore \boxed{(a + b)^2 = a^2 + 2ab + b^2} \quad (\because \text{By simplify like terms})$$

