

## Chapter 09

### ALGEBRAIC EXPRESSION & IDENTITIES

#### Example- 8:

The value of the product  $(4x^2 + 3y)(4x^2 + 3y)$  at  $x=1, y=2$  is  $k$ . The value of  $k \div 25$  is \_\_\_\_

#### Solution:

We have,

$$\begin{aligned}
 (4x^2 + 3y)(4x^2 + 3y) &= (4x^2 + 3y)^2 \\
 &= (4(1)^2 + 3(2))^2 \quad (\because x=1, y=2) \\
 &= (4(1) + 3(2))^2 \\
 &= (4 + 6)^2 \\
 &= (10)^2 \\
 (4x^2 + 3y)(4x^2 + 3y) &= 100 = k \quad (\because \text{given})
 \end{aligned}$$

The value of  $k \div 25 = \frac{100}{25} = 4$ .