Squaring A Number In The Range (40 – 49):

A. This method comes from algebra:

$$(50 - a)^2 = 100(25 - a) + a^2$$

B. Using numbers instead of variables we get the following:

1. Find the difference between the number and 50.
2. Square the result of step 1 and write it down (make sure it takes up 2 place values).
3. Subtract the result of step 1 from 25. Write this result.

Ex [1] 49^2 =_____.

a) The difference from 50 is 1.

b) $1^2 = 1$. Write 01 to take up 2 place values.

c) $25 - 1 = 24$. Write 24.

d) The answer is 2401.

Ex [2] 42^2 =_____.

a) The difference from 50 is 8.

b) $8^2 = 64$. Write 64.

c) $25 - 8 = 17$. Write 17.

d) The answer is 1764.