



Using multiplication:

$$\begin{array}{r} 37 \\ \times 37 \\ \hline 259 \\ 111 \\ \hline 1369 \end{array}$$

This matches with the result obtained using the column method.

(iii) Here, $a = 5$, $b = 4$

Step 1. Make 3 columns and write the values of a^2 , $2 \times a \times b$ and b^2 in these columns.

Column I	Column II	Column III
a^2	$2 \times a \times b$	b^2
25	40	16

Step 2. Underline the unit digit of b^2 (in Column III) and add its tens digit, if any, with $2 \times a \times b$ (in Column II).

Column I	Column II	Column III
a^2	$2 \times a \times b$	b^2
25	$40 + 1$	<u>16</u>
	41	

Step 3. Underline the unit digit in Column II and add the number formed by the tens and other digits, if any, with a^2 in Column I.

Column I	Column II	Column III
a^2	$2 \times a \times b$	b^2
$25 + 4$	$40 + 1$	<u>16</u>
29	<u>41</u>	

Step 4. Underline the number in Column I.

Column I	Column II	Column III
a^2	$2 \times a \times b$	b^2
$25 + 4$	$40 + 1$	<u>16</u>
<u>29</u>	<u>41</u>	

Step 5. Write the underlined digits at the bottom of each column to obtain the square of the given number.

In this case, we have:

$$54^2 = 2916$$

Using multiplication:

$$\begin{array}{r} 54 \\ \times 54 \\ \hline 216 \\ 270 \\ \hline 2916 \end{array}$$

This matches with the result obtained using the column method.

(iv) Here, $a = 7$, $b = 1$

Step 1. Make 3 columns and write the values of a^2 , $2 \times a \times b$ and b^2 in these columns.

Column I	Column II	Column III
a^2	$2 \times a \times b$	b^2
49	14	1

Step 2. Underline the unit digit of b^2 (in Column III) and add its tens digit, if any, with $2 \times a \times b$ (in Column II).

Column I	Column II	Column III
a^2	$2 \times a \times b$	b^2
49	$14 + 0$	<u>1</u>
	14	

Step 3. Underline the unit digit in Column II and add the number formed by the tens and other digits, if any, with a^2 in Column I.

Column I	Column II	Column III
a^2	$2 \times a \times b$	b^2
49 + 1	14 + 0	<u>1</u>
50	14	

Step 4. Underline the number in Column I.

Column I	Column II	Column III
a^2	$2 \times a \times b$	b^2
49 + 1	14 + 0	<u>1</u>
<u>50</u>	<u>14</u>	

Step 5. Write the underlined digits at the bottom of each column to obtain the square of the given number.

In this case, we have:

$$71^2 = 5041$$

Using multiplication:

$$\begin{array}{r} 71 \\ \times 71 \\ \hline 71 \\ 497 \\ \hline 5041 \end{array}$$

This matches with the result obtained using the column method.

(v) Here, $a = 9$, $b = 6$

Step 1. Make 3 columns and write the values of a^2 , $2 \times a \times b$ and b^2 in these columns.

Column I	Column II	Column III
a^2	$2 \times a \times b$	b^2
81	108	36

Step 2. Underline the unit digit of b^2 (in Column III) and add its tens digit, if any, with $2 \times a \times b$ (in Column II).

Column I	Column II	Column III
a^2	$2 \times a \times b$	b^2
81	108 + 3	<u>36</u>
	111	

Step 3. Underline the unit digit in Column II and add the number formed by the tens and other digits, if any, with a^2 in Column I.

Column I	Column II	Column III
a^2	$2 \times a \times b$	b^2
81 + 11	108 + 3	<u>36</u>
92	<u>111</u>	

Step 4. Underline the number in Column I.

Column I	Column II	Column III
a^2	$2 \times a \times b$	b^2
81 + 11	108 + 3	<u>36</u>
<u>92</u>	<u>111</u>	

Step 5. Write the underlined digits at the bottom of each column to obtain the square of the given number.

In this case, we have:

$$96^2 = 9216$$

Using multiplication:

$$\begin{array}{r} 96 \\ \times 96 \\ \hline 576 \\ 864 \\ \hline 9216 \end{array}$$

This matches with the result obtained using the column method.

***** END *****