

Squaring Numbers Ending in 5, 25 & 75.

Rule 27. To square numbers ending in 5; square the 5 for the right hand two figures and multiply the tens figure by the next number higher for the balance of the answer.

Ex $35^2 = 1225$ The 25 is 5 and 12 is 3×4

$85^2 = 7225$ " 25 " 5 " 72 " 8×9

Rule 28 To Square Numbers ending in 25; as 825^2 , the three figures to the right will always be the square of 25, or 625. The fourth figure will be 0 or 5, 5 if 3rd figure in question is odd. The remaining two figures is the square of the 3rd figure plus half the 3rd figure.

Ex $825^2 = 680625$. The 625 is square of 25

The 68 is $8 \times 8 + \frac{1}{2}$ of 8.

$925^2 = 855625$. The 855 is $9 \times 9 + \frac{1}{2}$ of 9 (855)

Rule 29 To Square Numbers ending in 75 as 875^2 , the four figures to the right will be 5625 (the square of 75) unless the 3rd figure in the question is odd when the 4th figure - 5 - will change to - 0 -; the remaining two figures is the product of the 3rd figure and the next higher in order plus half the 3rd figure.

Ex $875^2 = 765625$ The 5625 is square of 75

The 76 = $8 \times 9 + \frac{1}{2}$ of 8.

$975^2 = 950625$ The 950 = $9 \times 10 + \frac{1}{2}$ of 9 = 94½

This 94½ or 94 5 becomes 950

when the 4th figure in the square of 75 viz 5 is added to the 5 which the ½ with 94 equals

2 3 4 5 6 7 8 9 2 3 4 5 6 7 8 9
9 7 5 3 1 3 5 7 9 9 7 5 3 1 5 3