**FINDING SQUARES OF NUMBERS NEARER TO 100**

**X2 = X2 + Y2 - Y2**

**X2 = X2 - Y2 + Y2**

**X2 = (X2 - Y2) + Y2**

**X2 = (X + Y)(X – Y) + Y2**

Here **’Y’** is any numberWe have to take ‘Y’ value such that **(X + Y)** or**(X – Y)** is 100.

**Example** Let we find the value of **982** 

Here we have to take **Y = 2** Because 98 is 2 less than 100)

**982 = (98 + 2)(98 - 2) + 22**

**= 100 x 96 + 4**

**= 9600 + 4**

**= 9604**

We can imagine /calculate the solution in our memory as follows

**Add 2 to 98 gives 100. And subtract 2 from 98 gives 96.**

**The product of these two numbers is 9600.**

Add **22** means  **4** then we get  **9604.**

**Example** Let we find the value of **962** 

Here we have to take **Y = 4** Because 96 is 4 less than 100)

**962 = (96 + 4) (96 - 4) + 42**

**= 100 x 92 + 16**

**= 9216**

Imagine /calculate the solution in our memory as follows

**Add 4 to 96 gives 100. And subtract 4 from 96 gives 92.**

**The product of these two numbers is 9200.**

Add **42** means  **16** then we get  **9216.**

**Example** Let we find the value of **972** 

**Add 3 to 97 gives 100. And subtract 3 from 97 gives 94.**

**The product of these two numbers is 9400.**

Add **32** means  **9** then we get  **9409.**

**Example** **992 = 9800 + 1 = 9801**

**932 = 8600 + 49 = 8649**

**922 = 8464**

**Example** Let we find the value of **1042** 

Here **Y = 4** Because 104 is 4 more than 100)

**1042 = 108 x 100 + 16 = 10816**

**Example** **1022 = 10404**

**1032 = 10609**

**1062 = 11236**

**1092 = 11881**

**Do these** **1012= ……………… 1072= ……………… 1082= …………………**

**992= ……………… 912= ……………… 942= …………………**

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