

## **A note on the Factorial Function**

by Piyush Goel - Sunday, December 08, 2013

<https://gonitsora.com/note-factorial-function/>

Write down 0,1,2,3,4,5 and put parallelly **square** of each number like 0,1,4,9,16,25, then start to subtract the bigger one to the lower one (1--0),(4--1),(9--4),(16--9) and (25--16) to get 1,3,5,7,9 and again subtract the bigger one to the lower one (3--1),(5--3),(7--5) and (9--7) to get **(2,2,2,2)**.

Again we **squared each number**, at the same time we **cubed each number** (0,1,8,27,64,125,216) and the same procedure follows, subtract the bigger one to the lower one (1--0),(8--1),(27--8),(64--27),(125--64) and (216--125) to get (1,7,19,37,61,91) and again (7--1),(19--7),(37--19),(61--37) and (91--61), to get (6,12,18,24,30) same again(12--6),(18--12),24--18) and (30--24) **till the result come out** here we get **(6,6,6,6)**.

At the same time if we do it again for 4 and 5 (power).When we get **2 for 2 ,6 for 3 ,24 for 4 and 120 for 5. The result is the factorial function.**

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