Digital root

Digital Root is the single number obtained by adding the individual digits of a number successively. Eg. Digital Root of 347 = 3 + 4 + 7 = 14, 14 = 1 + 4 = 5. Thus, 5 is a single digit number, which is the digital root/ seed number of 347.

Digital Root of Maths Tables 1-9

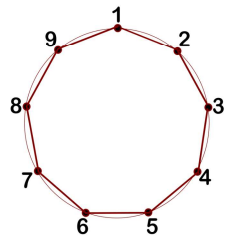

Table-1

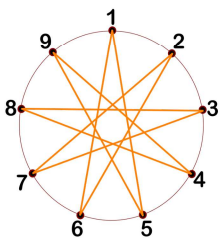

Table-4

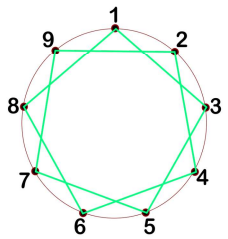

Table-7

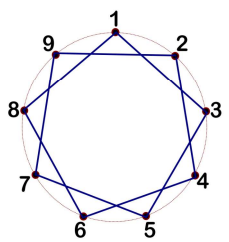

Table-2

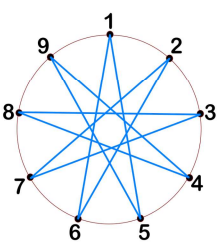

Table-5

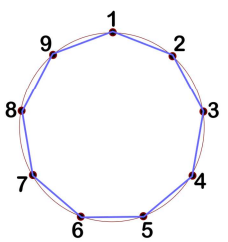

Table-8

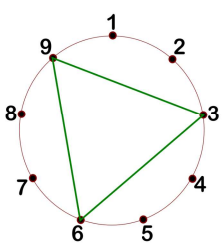

Table-3

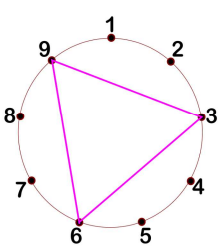

Table-6

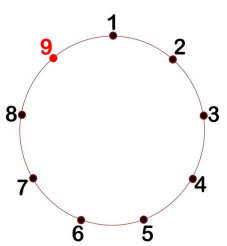

Table-9

Made by S. Rajarajan using Inkscape

In the above diagram, there exists only 5 unique patterns (why?). To represent any Multiplication Table, we need only any one of the above 5 unique patterns

Application of Digital root concept (with example)

(1) Addition: 887 + 914 = 1801, to check our answer quickly, simply add the digital root of 887, 914 and compare with the digital root of 1801. i.e LHS: 5+5 ... 1, RHS:1 The answer is probably correct. If LHS is not equal to RHS, the answer is definitely wrong.

(2) Subtraction: 914 - 887 = 27 ... LHS: 5-5=0, RHS:9 (equivalent to 0, because when 9 is added to any number, its digital root does not change. 0+9=9, DR of 97 or 997 is still 7 only)

(3) Multiplication: 887 X 914 = 810718 ... LHS: 5 X 5 =25 ...7, RHS: 9+9+7 ... 7

(4) Division: 914/887 = Q1 + R 27, to check our answer, we use the formula (DR of Q * DR of Divisor) + DR of remainder = DR of dividend...
(1 X 5) + 9 = 14 ... 5 = DR of 914 ...5

Note: When any number is divided by 9, the the remainder is the DR of that number

Prepared by S Rajarajan