QUANTITATIVE ABILITY I

Number theory- Shortcuts & Divisibility rule & Unit place deduction & LCM &HCF

A number is divisible by 3 if the sum of its digits is divisible by 3. A number is divisible by 4, if the number formed by the last two digits is divisible by 4. A number is exactly divisible by 5 if it has the digits 0 or 5 at one's place. A number is exactly divisible by 6 if that number is divisible by 2 and 3 both

1. Number System Aptitude Tricks: Types of Numbers
2. Number System Aptitude Tricks: Sums
3. Divisibility Methods
4. Number System Aptitude Tricks: A Few Bonuses

Also Read:

- Data Interpretation Tricks for GMAT/GRE
- Problems on Ages

Number System Aptitude Tricks: Types of Numbers

Typically, these type of questions pertain to a certain classification of numbers. More often than not, this includes natural numbers, whole numbers, integers, rational numbers, odd & even numbers and prime & composite numbers. A few exams may also test on real, imaginary and complex numbers. To get a better idea of these number system aptitude tricks, take a look at the following illustration.

Whole numbers	0,1,2,3,4,5,6,7……
Natural Numbers	1,2,3,4,5,6,7,8,…….
Integers	……-3,-2,-1,0,1,2,3,4,5,6,……..
Prime Numbers	3,5,7,11,13,17,19,23……..
Co-Prime Numbers	HCF = 1
Composite Numbers	4,6,8,9,12,14,15,16,18,20……..

Even Numbers	2,4,6,7,8,10,12,14……..
Odd Numbers	3,5,7,9,11,13,15……
Rational Numbers	In ‘p/q’ form wherein p & q are integers and q to 0
Irrational Numbers	Pi, e, √2, √3, √5, √7……

Divisibility Methods

Tricks of divisibility help you solve direct questions on numbers as well as indirect questions related to simplification, division, **LCM and HCF** amongst others. It is one of the most commonly utilised number system aptitude tricks and simply requires you to memorise the divisibility until at least 8 while the more you do, the better.

Divisibility by 2	Unit digit is 0,2,4,6 or 8
Divisibility by 3	Sum of the digits is divisible by 3
Divisibility by 4	Last two digits is divisible by 4
Divisibility by 5	Unit’s digit is either 0 or 5
Divisibility by 6	Divisible by both 2 & 3
Divisibility by 8	Last three digits is also divisible by 8
Divisibility by 9	Sum of digits is divisible by 9
Divisibility by 10	Unit digit is 0
Divisibility by 11	Difference of the sum of digits at odd places and the sum of the digits at even places is eithe perfectly divisible by 11
Divisibility by 12	Divisible by both 3 & 4
Divisibility by 14	Divisible by both 2 & 7