SPARK
Training for successful career

Practice on Any Language -100+Problems

When we start practicing to improve our programming skills, the very first problems are always based on numbers. Here are Presenting Problems on,

❶ Simple Numbers

❷ Unit Conversion

❸ Calculation

❹ Geometry

❺ Vector

❻ Matrix

❼ Set

❽ Special Numbers

Start...

❶ Simple Numbers

① Find a digit at a specific place in a number

② Find count of digits in a number

③ Find the largest digit

④ Find the 2nd largest digit

⑤ Find the kth largest digit

⑥ Find the smallest digit

⑦ Find the 2nd smallest digit

⑧ Find the kth smallest digit

⑨ Find generic root (sum of all digits) of a number

⑩ Reverse the digits in a number

①① Rotate the digits in a number

①② Is the number a palindrome?

①③ Find sum of 'n' numbers

①④ Check if a number is perfect square

①⑤ Find a number in an AP sequence

①⑥ Find a number in a GP sequence

①⑦ Find a number in fibonacci sequence

①⑧ Check number divisibility by 2, 3, 5, 9

①⑨ Check if a number is primary or not

20. Given a number, print all primes smaller than it

②① Check if a number is circular prime or not

②② Find all prime factors of a number

②③ Find the GCD of 2 numbers

②④ Find the LCM of 2 numbers

❷ Unit Conversion

① Base (Binary, Octal, Hexadecimal, Decimal)

② Weight

③ Height

④ Temperature

⑤ Distance

⑥ Area

⑦ Volume

⑧ Time

⑨ Currency

❸ Calculation

① Find the exponentiation of a number

② Find the factorial of a number

③ Loan EMI Calculator

④ Fixed Deposit Returns Calculator

⑤ Interest Calculator

⑥ BMI Calculator

⑦ Item Price (considering tax, discount, shipping)

⑧ Tip Calculator

❹ Geometry

① Find distance between 2 points

② Given 2 sides of a right angle triangle, find the 3rd

③ Find 3rd angle of a triangle when 2 are given

④ Area of a triangle when 3 sides are given

⑤ Area of a right angle triangle

⑥ Perimeter of a Square

⑦ Area of a Square

⑧ Perimeter of a Rectangle

⑨ Area of a Rectangle

⑩ Circumference of a Circle

⑪ Area of a Circle

⑫ Circumference of a Semi-Circle

⑬ Area of a Semi-Circle

⑭ Area of a Ring

⑮ Circumference of an Ellipse

⑯ Area of an Ellipse

⑰ Suface Area of a Sphere

⑱ Volume of a Sphere

⑲ Surface Area of a Hemisphere

20. Volume of a Hemisphere

㉑ Surface area of a Cube

㉒ Volume of a Cube

㉓ Surface area of a Cylinder

②④ Volume of a Cylinder

❺ Vector

① Find Scalar Multiplication of a vector

② Find addition/subtraction of vectors

③ Find magnitude of a vector

④ Find an unit vector along a given vector

⑤ Find dot product of 2 vectors

⑥ Find cross product of 2 vectors

⑦ Check if 2 vectors are orthogonal

❻ Matrix

① Find the determinant of a matrix

② Find Scalar Multiplication of a matrix

③ Find addition/subtraction of matrices

④ Find the transpose of a matrix

⑤ Find if 2 matrices are orthogonal

⑥ Find inverse of a 2x2 and 3x3 matrix

❼ Set

① Find Union of 2 sets

② Find Intersection of 2 sets

③ Find the Difference of 2 sets

④ Find the Symmetric Difference of 2 sets

⑤ Find if a set is subset/superset of another set

⑥ Find if 2 sets are disjoints

❽ Special Numbers

① Strong Number

② Perfect Number

③ Armstrong Number

④ Harshad Number

⑤ Kaprekar Number

⑥ Lychrel Number

⑦ Narcissistic Decimal Number

⑧ Lucus Number

⑨ Catalan Number

⑩ Duck Number

①① Ugly Number

①③ Deficient Number

①④ Automorphic Number

①⑤ Magic Number

①⑥ Friendly Pair Numbers

①⑦ Neon Number

①⑧ Spy Number

①⑨ Happy Number

20. Sunny Number

②① Disarium Number

②② Pronic Number

②③ Trimorphic Number

②④ Evil Number

②⑤ Amicable Pairs ①② Abundant Number