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| --- | --- |
| **Factorial**  Write an algorithm to find the factorial of given number. | Factorial(number):  SET Fact = 1 and i = 1  WHILE i<=number  SET Fact=Fact\*i  SET i=i+1  ENDWHILE  PRINT Fact  END |
| **Fibonacci Sequence**  Write an algorithm to generate the Fibonacci Sequence upto to the given number. | Fibonacci(number):  SET first = 0 , second = 1 and i = 2  PRINT first and second  WHILE (i<number)  SET next = first + second and PRINT next  SET first = second  SET second = next and i = i+1  ENDWHILE  END |
| **Number of digits**  Write an algorithm to display the number of digits in a given number. | **NumberOfDigits(number):**  **SET count=0**  **WHILE (number > 0):**  **SET count=count+1 and SET number=number/10**  **ENDWHILE**  **PRINT count**  **END** |
| **Maximum element in an array**  Write an algorithm to display the maximum element in an array. | **ArrayMaxElement(arr, N):**  **SET i=1 and max=arr[0]**  **WHILE (i<N):**  **IF (arr[i]>max) THEN**  **SET max=arr[i]**  **ENDIF**  **SET i=i+1**  **ENDWHILE**  **PRINT max**  **END** |
| **Sum of elements in an array**  Write an algorithm to find the sum of the numbers in an array. |  |
| **Search Element**  Write an algorithm to search for an element in an array. |  |
| **Count of Even and Odd Elements**  Write an algorithm to display the number of even and odd elements in an array. |  |
| SWAPING TWO NUMBERS  **SWAPPING OF TWO ROLL NUMBERS**  Rita was about to award 2 students with 1st and 2nd prize. But unfortunately, he interchanged both of them. Consider the first number as the roll number of the student who won a the1st prize and the next roll number of the student who won 2nd prize. Can you write a program to swap two numbers without using a third variable?  **Input format  :**    Input consists of two integers.  **Output format :**    Output consists of two integers which are swapped.  **Sample Input and Output :**  [ All text of bold corresponds to input ]  Enter values:  **15**  **2**  Values after swapping:  2  15 |  |
| EVEN OR ODD **Even or Odd**  Write a program to check whether the given number is Even or Odd  **Input Format:** Input consists of an single integer.  **Output Format:** Refer to the sample input an output. **[All text in bold corresponds to input and the rest corresponds to output.]**  **Sample Input and Output 1:**  Enter the number: **4**  The given number is even  **Sample Input and Output 2:**  Enter the number: **5**  The given number is odd |  |
| S1P2 - REVERSE OF A NUMBER **Reverse of a number**  Write a program to reverse the digits of a number.  **(Note : Please use initialize statement before input statement)**    **Input format :**  Input consists of an integer value.  **Output format :**  Output consists of the reverse of the given number.  [ Refer Sample Input and Output for further details ]    **Sample Input and Output 1 :**  **[ All text of bold corresponds to Input and the rest output]**  Enter the number : **5642** Reverse of the number is 2465    **Sample Input and Output 1 :**  Enter the number : **144** Reverse of the number is 441 |  |
| **DIGIT COUNTING**    Write a program to find the number of digits in a given number. **(Note : Please use initialize statement before input statement)**  **Input Format:**  Input consists of an integer.  **Output Format:**  Output consists of a single line. Refer sample output for details.  **Sample Input 1:**  42  **Sample Output 1:**  The number of digits in 42 is 2 |  |
| **Fibonacci Series**  Madhu and Balaji had a competition to generate a fibonacci series. Its a Hundred rupees bet!!! Why cant you help him? Create a variable 'n' to get the range.  **(Note : Please use initialize statement before input statement)**  **Sample Input and Output 1: [All text in bold corresponds to input and the rest corresponds to output.]** Enter the range: **7** Fibonacci series: 0 1 1 2 3 5 8 |  |