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| **Program No**: **08 Date:13/07/2021**  **PASCAL’S TRIANGLE**  **AIM :** To write a program to print Pascal’s Triangle.  **ALGORITHM:**    Step 1.Start  Step 2. Take number of rows to be printed from user  Step 3. Make outer iteration to print rows  Step 4. Make inner iteration to print the space with the equation  Number of row-current row -2  Step 5. Make a another loop for calculating and printing the values in the  Triangle using Pascal’s formula(nCk)    Step 6. After printing each row go to next line  Step 7. Stop  **PROGRAM:**   |  | | --- | | **/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***  **Title : Pascal's Triangle**  **Author : Deepak M S**  **Date : 13/07/2021**  **Aim : To write Program for printing Pascal's Triangle**  **\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**  **#include <stdio.h>**  **int main()**  **{**  **//variable declaration**  **int rowSize,i,j,x,a1,a2,a3,value;**    **//get the Number of row**  **printf("Enter the Number of rows");**  **scanf("%d",&rowSize);**    **//outer iteration loop for traversing through the rows**  **for(i=0;i<rowSize;i++){**  **//loop for printing space**  **for(j=0;j<=(rowSize-i-2);j++){**  **printf(" ");**  **}**  **//loop for calculating Pascal triangle value and print that**  **for(j=0;j<=i;j++){**  **//formula : C(n,k)--> nCk = n! / (k! \* (n-k)!)**  **a1=1;**  **a2=1;**  **a3=1;**  **//calculate n!**  **for(x=2;x<=i;x++){**  **a1 \*= x;**  **}**  **//calculate k!**  **for(x=2;x<=j;x++){**  **a2 \*= x;**  **}**  **//calculate (n-k)!**  **for(x=2;x<=i-j;x++){**  **a3 \*= x;**  **}**  **value = a1/(a2\*a3);**  **printf("%d ",value);**  **}**    **//go to new line after printing each row**    **printf("\n");**  **}**  **return 0;**  **}** |   **SAMPLE OUTPUT:**    **RESULT:**  Program run successfully and able to get the correct output |