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Section-R

1.Write a program in C that reads a positive integer n and then prints the following pattern

(a)

\* \* \* \* \*

\* \*

\* \*.

\* \*

\* \* \* \* \*

ANSWER:

#include<stdio.h>

int main()

{

int a,b,c,i,d,e,x;

printf("\n\n\t\tEnter the integer more than or equal to 4 to make the pattern : ");

scanf("%d",&a);

for(i=1;i<=2;i++)

{

for(b=1;b<=a;b++)

{

printf("\* ");

d=a-2;

}

if(i==2)

{

break;

}

printf("\n");

for(c=1;c<=d;c++)

{

printf("\* ");

if(a>4)

{

x=a-4;

}

for(e=1;e<=a+x;e++)

{

printf(" ");

}

printf("\*");

printf("\n");

}

}

printf("\n");

return 0;

}

(b)

\*

\* \* \*

\* \* \* \* \*

\* \* \* \* \* \* \*

\* \* \* \* \* \* \* \* \*

Solution:

#include<stdio.h>

int main()

{

int a,b,i,c,d;

printf("Enter the number of rows you want to print :");

scanf("%d",&a);

for(i=1;i<=a;i++)

{

for(d=a;d>=i;d--)

{

printf(" ");

}

c=2\*i-1;

for(b=1;b<=c;b++)

{

printf("\* ");

}

printf("\n");

}

return 0;

}

(C)

1

1 1

1 2 1

1 3 3 1

1 4 6 4 1

1 5 10 10 5 1

Solution:

#include<stdio.h>

#include<conio.h>

void main()

{

int i,j,k,n,c;

printf("\n Enter the limit: ");

scanf("%d",&n);

printf("\n ");

for(i=0;i<n;i++)

{

c=1;

for(k=0;k<n-i;k++)

{

printf(" ");

}

for(j=0;j<=i;j++)

{

printf(" %d ",c);

c=(c\*(i-j)/(j+1));

}

printf("\n");

}

getch();

}

2.Take the price and quantity of items as an input. Write a C program to calculate the discount according to the following rules:Kushagra

For total less than Rs.1000, discount is 5%.

For total greater than Rs.1000 but less than Rs.5000, discount is 10%.

For total greater than Rs.5000, discount is 15%.

Solution:

#include<stdio.h>

#define price\_after\_discount a

int main()

{

int price,quantity;

float total,discount,price\_after\_discount;

printf("\n\tEnter the number of quantity :");

scanf("%d",&quantity);

printf("\tEnter the price of the product :");

scanf("%d",&price);

total=quantity\*price;

printf("Your price before discount :%.2f\n",total);

if(total<=1000)

{

discount=5;

}

else if(total>1000 && total<=5000)

{

discount=10;

}

else

{

discount=15;

}

a=total-discount/100;

printf("Your price after discount :%.2f\n",a);

printf("\tTHANKS\n");

return 0;

}

3.Write a program in C to find the sum of the first and last digit of a number.

Solution:

#include <stdio.h>

int main()

{

int n, sum=0,a,b;

printf("Enter number to find sum of first and last digit = ");

scanf("%d", &n);

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b=n%10;

while(n >= 10)

{

n = n / 10;

}

a = n;

sum =a+b;

printf("Sum of first and last digit = %d", sum);

return 0;

}

4.Write a program in C to convert number entered in words.

Example: //kushagra

Input Number: 234

Output: Two Three Four

Solution:

#include <stdio.h>

int main()

{

int n, num = 0;

printf("Enter any number to print in words: ");

scanf("%d", &n);

while(n != 0)

{

num = (num \* 10) + (n % 10);

n /= 10;

}

while(num != 0)

{

switch(num % 10)

{

case 0:

printf("Zero ");

break;

case 1:

printf("One ");

break;

case 2:

printf("Two ");

break;

case 3:

printf("Three ");

break;

case 4:

printf("Four ");

break;

case 5:

printf("Five ");

break;

case 6:

printf("Six ");

break;

case 7:

printf("Seven ");

break;

case 8:

printf("Eight ");

break;

case 9:

printf("Nine ");

break;

}

num = num / 10;

}

return 0;

}

5.Write a C program to check if a number has three consecutive 6s.

If yes, print YES, else print NO. Example#1:

Number: 353664

Result: NO

Example#1:

Number: 346669

Result: YES

Solution:

#include<stdio.h>

int main()

{

char a[6];

printf("enter your number here\n");

scanf("%s",a);

if(a[0,1,2]=='6'){

printf("yes");

}

else if(a[2,3,4]=='6'){

printf("yes");

}

else if(a[3,4,5]=='6'){

printf("yes");

}

else{

printf("no");

}

return 0;

}