Q1. Print hello world.

#include <stdio.h>

int main(){

printf("Hello world");

return 0;

}

Q2. Swap 2 numbers

#include <stdio.h>

int main(){

int x,y,z;

printf("enter value of x: ");

scanf("%d",&x);

printf("enter value of y:");

scanf("%d",&y);

z=x;

x=y;

y=z;

printf("the value of x now is %d ",x);

printf ("and the value of z now is %d",y);

return 0;

}

Q3. Perform addition on 2 numbers.

#include <stdio.h>

int main(){

float x,y,z;

printf("Enter a number to add: ");

scanf("%f", &x);

printf("Enter another number: ");

scanf("%f", &y);

z=x+y;

printf("%.2f + %.2f =%.2f",x,y, z);

return 0;

}

Q4. find greater among 2 numbers.

#include <stdio.h>

int main(){

float x,y;

printf ("enter an number to compare: ");

scanf("%f", &x);

printf("Enter another number: ");

scanf("%f", &y);

if (x>y){

printf("%.2f is greater than %.2f", x,y);

}

else{

printf("%.2f is greater than %.2f",y,x);

}

return 0;

}

Q5. find greater among 3 numbers (Ladder if else).

#include <stdio.h>

int main(){

float x,y,z;

printf("Enter a number: ");

scanf("%f",&x);

printf("Enter another number: ");

scanf("%f",&y);

printf("Enter another number: ");

scanf("%f",&z);

if (x>y && x>z){

printf("%.2f is greater than %.2f and %.2f",x,y,z);

}

else if(y>x && y>z){

printf("%.2f is greater than %.2f and %.2f",y,x,z);

}

else{

printf("%.2f is greater than %.2f and %.2f",z,x,y);

}

return 0;}

Q6. find greater among 3 numbers (Nested if else).

#include <stdio.h>

int main(){

float x,y,z;

printf("enter a number: ");

scanf("%f", &x);

printf("enter another number: ");

scanf("%f", &y);

printf("enter another number: ");

scanf("%f", &z);

if (x>y){

if (x>z){

printf ("%.2f is the greatest number", x);

}

else{

printf("%.2f is the greatest number",z);

}

}

else if (y>x){

if (y>z){

printf("%.2f is the greatest number",y);

}

else{

printf("%.2f is the greatest number",z);

}

}

return 0;

}

Q7.find whether a given num is odd or even.

#include <stdio.h>

int main(){

int x;

printf("Enter a no.: ");

scanf("%d" ,&x);

if (x%2==0){

printf("%d is an even number",x);

}

else{

printf("%d is an odd number",x);

}

return 0;

}

Q8. print week days corresponding to the day number given by the user.

#include <stdio.h>

int main(){

int x;

printf("Enter a number to see its corresponding weekday(1-7): ");

scanf("%d",&x);

switch (x){

case 1:

printf("The day is Monday");

break;

case 2:

printf("tuesday");

break;

case 3:

printf("Wednesday");

break;

case 4:

printf("Thursday");

break;

case 5:

printf("Friday");

break;

case 6:

printf("Saturday");

break;

case 7:

printf("Sunday");

break;

default:

printf("Enter a correct number");

return 0;

}

Q9. Make a calculator.

#include <stdio.h>

int main(){

int x,y,w;

char op;

printf("enter a number: ");

scanf("%d", &x);

printf("enter an operator from \n+\n-\n\*\n/\n//\n%\n");

scanf(" %c", &op);

printf("enter another number: ");

scanf("%d", &y);

switch (op){

case '+' :

w=x+y;

printf("%d",w);

break;

case '-':

w=x-y;

printf("%d",w);

break;

case '\*':

w=x\*y;

printf("%d",w);

break;

case '/':

w=x/y;

printf("%d",w);

break;

case '%':

w=x%y;

printf("%d",w);

break;

default:

printf("wrong operator!");

}

return 0;

}

Q10. Make a menu for area of shapes.

#include <stdio.h>

int main(){

int r, l, b, choice;

float area;

printf("enter the option number you want the area of:-\nrectangle\nsquare\ncircle\n");

scanf("%d",&choice);

switch (choice){

case 1:

printf("Enter the length: ");

scanf("%d",&l);

printf("Enter the breadth: ");

scanf("%d",&b);

area=l\*b;

printf("area is %d", area);

break;

case 2:

printf("Enter the side: ");

scanf("%d",&l);

area=l\*l;

printf("area is %d", area);

break;

case 3:

printf("Enter the radius: ");

scanf("%d", &r);

area=3.14\*r\*r;

printf("area is %.2f", area);

break;

}

return 0;

}

Q11. Print a table of 5 using goto.

#include <stdio.h>

int main(){

int x,y,z;

printf("Enter a number for its table upto 10: ");

scanf("%d", &x);

z=1;

begin:

y=x\*z;

printf("%dx%d=%d\n",x,z,y);

z=z+1;

if (z<=10) goto begin;

return 0;

}

Q12. Print a table of 5 using while.

#include<stdio.h>

int main(){

int res,i,inp;

printf("Enter a number to get its table: ");

scanf("%d",&inp);

i=1;

while (i<=10){

printf("%dx%d=%d\n",inp,i,inp\*i);

i++;

}

return 0;

}

Q13(a). Print Fibonacci sequence using for.

#include <stdio.h>

int main(){

int inp,i,y,z,res;

y=0;

z=1;

printf("Enter how many times you want to repeat the loop for fibonacci series: ");

scanf("%d", &inp);

printf("%d\n%d\n",y,z);

for (i=1; i<=inp; i++){

res=y+z;

printf("%d\n",res);

y=z;

z=res;

}

return 0;

}

Q13(b). Print Fibonacci sequence using while.

#include <stdio.h>

int main(){

int inp,i,y,z,res;

y=0;

z=1;

printf("Enter how many times you want to repeat the loop for fibonacci series: ");

scanf("%d", &inp);

printf("%d\n%d\n",y,z);

i=1;

while(i<=inp){

res=y+z;

printf("%d\n",res);

y=z;

z=res;

i++;

}

return 0;

}

Q14. Write all odd numbers from 1-10.

#include <stdio.h>

int main(){

int x=1;

while(x<=10){

if (x%2==0)

goto start;

printf("%d\n",x);

start:++x;

}

return 0;

}

Q15(a). Write to find out factorial using for.

#include <stdio.h>

int main(){

int i, x,y=1;

printf("Enter a number you want to know the facorial of: ");

scanf("%d",&x);

for (i=x; i>=1;i--){

y=y\*i;

}

printf("%d",y);

return 0;

}

Q15(b). Write to find out factorial using while.

#include<stdio.h>

int main ()

{

int ans=1 , num;

printf("enter factorial value: ");

scanf("%d",&num);

while(num>=1)

{

ans=ans\*num;

num--;

}

printf("\nans = %d",ans);

return 0;

}

Q16. Find if the given numbers form a Pythagorean triplet.

#include <stdio.h>

int main(){

int a,b,c,big;

printf("Enter the sides of the triangle: ");

scanf ("%d\n%d\n%d",&a,&b,&c);

// to find the biggest number

if (a>b && a>c){

big=a;

if((b\*b)+(c\*c)==big\*big){

printf("yes");

}

else{

printf("no");

}

}

else if(b>a && b>c){

big=b;

if((a\*a)+(c\*c)==big\*big){

printf("yes");

}

else{

printf("no");

}

}

else{

big=c;

if((b\*b)+(a\*a)==big\*big){

printf("yes");

}

else{

printf("no");

}

};

return 0;

}

Q17. Find the second largest number till -1 is input.

#include <stdio.h>

int main(){

int inp;

int a,b,c;

printf("Enter a number: ");

scanf("%d", &a);

printf("Enter a number: ");

scanf("%d", &b);

if (a>b){

c=b;

b=a;

a=c;

}

while (inp!=-1){

printf("Enter a number or enter -1 to exit: ");

scanf("%d", &inp);

c=inp;

if (c>b && c>a){

a=b;

b=c;

}

}

printf("%d",a);

}

Q18. Sum of adjacent pairs until -1 is entered.

#include <stdio.h>

int main(){

int i,x,y;

printf("Enter number or -1 to exit:");

scanf("%d",&x);

printf("Enter number or -1 to exit:");

scanf("%d",&y);

printf("%d\n",x+y);

while (i!=-1){

printf("Enter number or -1 to exit:");

scanf("%d",&i);

x=y;

y=i;

printf("%d\n",x+y);

}

return 0;

}

Q19. Number pattern

Enter number of rows you want = 6

1

1 2

1 2 3

1 2 3 4

1 2 3 4 5

1 2 3 4 5 6

#include <stdio.h>

int main(){

int i,n,j;

printf("enter no of rows: ");

scanf("%d",&n);

for (i=1;i<=n;i++){

for (j=1;j<=i;j++){

printf("%d",j);

}

printf("\n");

}

return 0;

}

Q20. Number pattern

Enter number of rows you want = 5

1

2 2

3 3 3

4 4 4 4

5 5 5 5 5

#include <stdio.h>

int main(){

int i,n,j;

printf("enter no of rows: ");

scanf("%d",&n);

for (i=1;i<=n;i++){

for (j=1;j<=i;j++){

printf("%d",i);

}

printf("\n");

}

return 0;

}

Q21. Star pattern

Enter number of rows you want = 5

\*

\* \*

\* \* \*

\* \* \* \*

\* \* \* \* \*

#include <stdio.h>

int main(){

int i,n,j;

printf("enter no of rows: ");

scanf("%d",&n);

for (i=1;i<=n;i++){

for (j=1;j<=i;j++){

printf("\*");

}

printf("\n");

}

return 0;

}

Q22. Star pattern

Enter number of rows =5

    \*

   \*\*

  \*\*\*

 \*\*\*\*

\*\*\*\*\*

#include <stdio.h>

int main(){

int i,n,j;

printf("enter no of rows: ");

scanf("%d",&n);

for (i=0;i<=n/2;i++){

for (j=0; j<n/2-i;j++){

printf(" ");

}

for (j=0; j<(2\*i)+1;j++){

printf("\*");

}

for (j=0; j<n/2-i;j++){

printf(" ");

}

printf("\n");

}

return 0;

}

Q23. Search an element in array.

#include <stdio.h>

int main(){

int inp, i, tag=0;

int arr[5];

printf("Enter a number to search if it's in the array: ");

scanf("%d",&inp);

printf("array= ");

for (i=0;i<5;i++){

arr[i]=i;

printf("%d ",arr[i]);

}

for (i=0;i<5;i++){

if (arr[i]==inp){

printf("\nWe found %d in the array at %d position",inp,i+1);

tag=1;

break;

}

}

if (tag==0){

printf("\nnot found");

}

return 0;

}

Q24. wap to Print sum of elements of array.

#include <stdio.h>

int main(){

int i, sum=0,num;

printf("Enter number of elements to be added into array: ");

scanf("%d",&num);

int arr[num];

for (i=0;i<num;i++){

printf("Enter the element for array at pos %d: ", i+1);

scanf("%d",&arr[i]);

sum+=arr[i];

}

printf("The sum of all elements of the array is= %d ",sum);

return 0;

}

Q25. Delete an element from array.

#include <stdio.h>

int main(){

int loc=3,n=5,arr[10]={1,2,3,4,5},i;

for (i=loc; i<n;i++){

arr[i-1]=arr[i];

}

n--;

arr[n]=' ';

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

printf("%d",arr[i]);

}

return 0;

}

Q26. Insert an element into array.

#include <stdio.h>

int main(){

int arr[10]={1,2,3,4,5};

int pos,num,i;

printf("Where do you want to enter the number: ");

scanf("%d", &pos);

printf("What number to enter: ");

scanf("%d", &num);

for (i=9; i>=(pos-1);i--){

arr[i]=arr[i-1];

}

arr[pos-1]=num;

for (i=0; i<10;i++)

printf("%d",arr[i]);

return 0;

}

Q27. Character Array (String) //initalization

#include <stdio.h>

int main(){

int i;

// char arr[]="Hash\0";

// for(i=0;arr[i]!='\0';i++)

// printf("%c",arr[i]);

char arr[]="HackSlash\0";

puts(arr);

// char arr[]="HackSlash\0";

// puts(arr);

printf("%c",arr[6]);

return 0;

}

Q28. Character Array (String)-Input

#include <stdio.h>

int main(){

// //input from user

//

// char name[100];

// printf("Enter your name: ");

// scanf("%s",&name);

// printf("Hello %s",name);

//

char name[100];

printf("Enter your name: ");

gets(name);

printf("hello");

puts(name);

return 0;

}

Q29. String Functions//strlen function

#include <stdio.h>

int main(){

char arr[20];

printf("Enter String: ");

gets(arr);

printf("No of character = %d",strlen(arr));

return 0;

}

Q30. String Functions//strupr & strlwr function

#include<string.h>

#include <stdio.h>

int main(){

char arr[20];

printf("Enter String: ");

gets(arr);

printf("%s \n",strupr(arr));

strlwr(arr);

printf("%s \n",arr);

return 0;

}

Q31. String Functions//strrev function

#include<string.h>

#include <stdio.h>

int main(){

char arr[20];

printf("Enter String: ");

gets(arr);

strrev(arr);

printf("%s\n",arr);

return 0; }

Q32. String Functions//strcat function

#include<string.h>

#include <stdio.h>

int main(){

char arr[20],arr1[20];

printf("Enter String1: ");

gets(arr);

printf("Enter String-2: ");

gets(arr1);

strcat(arr,arr1);

printf("%s\n",arr);

return 0;

}

Q33. String Functions//strcpy function

#include<string.h>

#include<stdio.h>

int main(){

char arr[20],arr1[20];

printf("Enter String1: ");

gets(arr);

strcpy(arr1,arr);

printf("%s\n",arr1);

return 0;

}

Q34. String Functions//strcmp function

#include<string.h>

#include <stdio.h>

int main(){

char arr[20],arr1[20];

int diff;

printf("Enter arr: ");

gets(arr);

printf("Enter arr1: ");

gets(arr1);

diff=strcmp(arr,arr1);

printf("%d",diff);

return 0;

}

Q35. String Functions//stricmp function

#include<string.h>

#include <stdio.h>

int main(){

char arr[20],arr1[20];

int diff;

printf("Enter arr: ");

gets(arr);

printf("Enter arr1: ");

gets(arr1);

diff=stricmp(arr,arr1);

printf("%d",diff);

return 0;

}

Q36. Pointer in programming-1

#include<string.h>

int main(){

int a, \*p;

p=&a;

scanf(“%d”,p);

printf(“%d\n”,\*p);

printf(“%d\n”,p);

printf(“%d\n”,&a);

return 0;

}

Q37. Pointer in programming-2

#include<string.h>

int main(){

int a=10, \*p;

p=&a;

printf(“%d\n”,\*p);

\*p=\*p+10;

printf(“%d\n”,\*p);

\*(&a)=a+\*p;

printf(“%d\n”,a);

return 0;

}

Q38. Pointer in programming with array

#include<string.h>

int main(){

int a[5], \*p,i;

p=&a[0];

for(i=0;i<5;i++)

scanf(“%d”,(p+i));

for(i=0;i<5;i++)

printf(“%d\n”,\*(p+i));

return 0;

}

Q39. WAP to find factorial using function which returns with an argument.

#include <stdio.h>

int facto(int);

int main(){

int num,a;

printf("enter a number to get factorial of: ");

scanf ("%d", &num);

a=facto(num);

printf("Factorial is= %d",a);

return 0;

}

int facto(int x){

int i,sum=1;

for (i=1; i<=x;i++){

sum=sum\*i;

}

return sum;

}

Q40. WAP to check if num is palindrome using function which returns with an argument.

#include <stdio.h>

int palin(int);

int main(){

int num, a;

printf("Enter a nunmber to check if it's palindrome: ");

scanf ("%d", &num);

a= palin(num);

if (a==1){

printf("yes");

}

else{

printf("no");

}

return 0;

}

int palin(int x){

int r,sum=0,temp;

temp = x;

while(x>0){

r=x%10;

sum=(sum\*10)+r;

x=x/10;

}

if (sum==temp){

return 1;

}

else {

return 0;

}

}

Q41. Matrix addition

//array addition

#include<stdio.h>

int main()

{

//matrix input

int a[3][3],b[3][3],c[3][3],i,j;

printf("enter elements of 1st 3x3 matrix\n");

for(i=0;i<3;i++)

{

for(j=0;j<3;j++)

{

scanf("%d",&a[i][j]);

}

}

//printing matrix

for(i=0;i<3;i++)

{

for(j=0;j<3;j++)

{

printf("%d ",a[i][j]);

}

printf("\n");

}

//2nd array input

printf("enter elements of 2nd 3x3 matrix\n");

for(i=0;i<3;i++)

{

for(j=0;j<3;j++)

{

scanf("%d",&b[i][j]);

}

}

//printing matrix

for(i=0;i<3;i++)

{

for(j=0;j<3;j++)

{

printf("%d ",b[i][j]);

}

printf("\n");

}

//adding matrix

for(i=0;i<3;i++)

{

for(j=0;j<3;j++)

{

c[i][j]=(a[i][j]+b[i][j]);

}

printf("\n");

}

//printing matrix

for(i=0;i<3;i++)

{

for(j=0;j<3;j++)

{

printf("%d ",c[i][j]);

}

printf("\n");

}

return 0;

}

Q42. Matrix multiplication

//matrix multiplication

#include<stdio.h>

int main()

{

//matrix input

int a[3][3],b[3][3],c[3][3],i,j,k;

printf("enter elements of 1st 3x3 matrix\n");

for(i=0;i<3;i++)

{

for(j=0;j<3;j++)

{

scanf("%d",&a[i][j]);

}

}

//printing matrix

for(i=0;i<3;i++)

{

for(j=0;j<3;j++)

{

printf("%d ",a[i][j]);

}

printf("\n");

}

//2nd array input

printf("enter elements of 2nd 3x3 matrix\n");

for(i=0;i<3;i++)

{

for(j=0;j<3;j++)

{

scanf("%d",&b[i][j]);

}

}

//printing matrix

for(i=0;i<3;i++)

{

for(j=0;j<3;j++)

{

printf("%d ",b[i][j]);

}

printf("\n");

}

//multiplication of matrix

for(i=0;i<3;i++)

{

for(j=0;j<3;j++)

{

int temp=0;

for(k=0;k<3;k++)

{

temp+=(a[i][k])\*(b[k][j]);

}

c[i][j]=temp;

}

}

//printing resultant obsmatrix

printf("The multiplication of the entered matrix is =\n");

for(i=0;i<3;i++)

{

for(j=0;j<3;j++)

{

printf("%d ",c[i][j]);

}

printf("\n");

}

return 0;

}

Q43. Matrix transpose

//matrix transpose

#include<stdio.h>

int main()

{

//matrix input

int a[3][3],i,j;

printf("enter elements of 3x3 matrix\n");

for(i=0;i<3;i++)

{

for(j=0;j<3;j++)

{

scanf("%d",&a[i][j]);

}

}

//printing matrix

printf("original matrix = \n");

for(i=0;i<3;i++)

{

for(j=0;j<3;j++)

{

printf("%d ",a[i][j]);

}

printf("\n");

}

printf("transpose of the given matrtix is =\n");

for(i=0;i<3;i++)

{

for(j=0;j<3;j++)

{

printf("%d ",a[j][i]);

}

printf("\n");

}

return 0;

}