

LOOPS

```
1.#include <stdio.h>
int main(){
int i, j , x=4;
i = 1 ; j = 1;
while ( i< 10 ) {
j = j * i;
i= i + 1;
if (i == x) break;
printf("%d %d\n",i,j);
}
}
```

```
2.#include <stdio.h>
int main()
{
int i = 1;
do
{
if(i % 2 != 0)
printf("%d ", i);
i++;
} while(i <= 5);
return 0;
}
```

```
3.#include <stdio.h>
#define and &&
#define or ||
int main() {
int var1=5,var2=3;
int res;
for(;var1 and var2;)
{
var1=var1 or ~var2;
var2=~var2 and !var1;
}
printf("%d %d",var1,var2);
}
```

4.How many times the loop will execute?

```
#include <stdio.h>
int main()
{
int x;
for(x = 1; x = 3; x++)
```

```
printf("Hi");  
}
```

```
5.#include <stdio.h>  
int main() {  
int num = 0;  
do {  
--num;  
printf("%d",--num);  
if(num<-5)  
break;  
}while(num < 2);  
}
```

```
6.#include <stdio.h>  
int main() {  
char i=0;  
for(i=34;i>-128;i--);  
i--;  
printf("%d",i);  
}
```

```
7.#include <stdio.h>  
int main()  
{  
int sum = 0, i = 2;  
while(i <= 10)  
{  
sum += i;  
i += 2;  
} printf("%d", sum);  
return 0;  
}
```

```
8.#include <stdio.h>  
int main()  
{  
int i = 0;  
while(i < 5)  
{  
printf("%d ", i);  
return 0;  
}  
}
```

```
9.#include <stdio.h>  
int main()  
{
```

```

int i;
for (i = -2; i < -5; i++)
    if(i== -3)
        printf("welcome\n");
    else
        printf("hai\n");
}

```

10. #include <stdio.h>

```

int main()
{
    int i;
    for(i = 1; i <= 4; i++)
    {
        if(i % 2 == 0)
            continue;
        printf("%d ", i);
    }
    return 0;
}

```

11. What is the value of digit in the following program ?

```

#include <stdio.h>
int main() {
    int digit = 0;
    for(; digit <= 9; )
        digit++;
    digit *= 2;
    --digit;
    return 0;
}

```

12. #include <stdio.h>

```

int main() {
    char c=10;
    for(c++;c--;c>2);
    printf("%d",c--);
}

```

13. # include <stdio.h>

```

int main()
{
    int i = 0;
    for (i=0; i<20; i++)
    {
        switch(i)
        {

```

```

    case 0:
        i += 5;
    case 1:
        i += 2;
    case 5:
        i += 5;
    default:
        i += 4;
        break;
    }
    printf("%d ", i);
}
return 0;
}

```

```

14.#include<stdio.h>
int main() {
int i = 3;
while(i>>1)
{
switch (i) {
case 1:printf("0");
        break;
case 1+2:printf("1");
default:printf("2");return 0;
        }
}
}

```

```

15.#include <stdio.h>
int main()
{
    int c = 20, no = 10;
    do {
        no /= c;
    } while(c--);

    printf ("%d\\n", no);
    return 0;
}

```

```

16.#include<stdio.h>
int main()
{
int i=1;
char ch='a';
do
{

```

```

printf("%c\n",ch);
}while(i++<2||++ch<100);
printf("%d\n",i);
}

```

```

17.#include<stdio.h>
int main(){
int a,b;
for(a=5,b=10;a+b;)
{
printf("%d %d\n",a,b);
a/=2;
b%=2;
}
}

```

```

18.#include <stdio.h>
int main()
{
int x = 3;
while(x==3)
{
if (x == 2);
x = 0;
if (x == 3)
x++;
else x += 2;
printf("x = %d", x);
return 0;
}
}

```

```

19.#include<stdio.h>
int main()
{
int i=0,j=6,k=6;
for(;1;)
{
if(i==j || k<0)
break;
printf("%d %d %d \n",i,j,k);
i++;j--;
k=k-4;
}
}

```

```

20.#include<stdio.h>
int main()

```

```

{
int i=0;
while(i++==0)
    printf("%d",++i);
printf("\n");
}

```

21.The minimum number of execution for do while loop is _____.

22.#include<stdio.h>

```

int main()
{
    int i = -5;
    while (i <= 5)
    {
        if (i >= 0)
            break;
        else
        {
            i++;
            continue;
        }
        printf("Hello");
    }
    return 0;
}

```

23.#include <stdio.h>

```

int main()
{
int index;
for(index=1; index<=5; index++)
{
printf("%d", index);
if (index==3)
continue;
}
}

```

24.#include<stdio.h>

```

int main()
{
int i=5;
while(i++>=i)
printf("%d ",i);
while(i++<--i);
printf("%d ",i);
}

```

```

25.#include<stdio.h>
int main()
{
int r=12,s=35;
for( ;r<p,s&p;r++,s++ )
printf("hello");
printf("hai");
}

```

```

26.#include<stdio.h>
int main()
{
int i,val;
for(i=0;i<10;i+=3)
    val+=i*i;
printf("%d\n",val);
}

```

```

27.#include <stdio.h>
int main()
{
    unsigned int i = 65000;
    while (i++ != 0);
    printf("%d", i);
    return 0;
}

```

```

28.#include <stdio.h>
int main()
{
    int i = 1, j;
    for ( ; ; )
    {
        if (i)
            j = --i;
        if (j < 10)
            printf("Yes", j++);
        else
            break;
    }
    return 0;
}

```

29.What is the output of the following code

```

#include <stdio.h>
int main()
{

```

```
int a=15;
do
printf("loop");
while (a/=2 && 0);
}
```

```
30.#include <stdio.h>
int main()
{
int i,j,a;
for(i=0;i<5;i++)
for(j=i;j>0;j--)
a=i+j+3;
printf("a=%d\n",a);
}
```

```
31.#include <stdio.h>
void main()
{
int i = 0;
while (i < 4)
{
i+=i*2;
printf("hi\n");
while (i < 4)
{
i++;
printf("hello\n");
}
}
}
```

32.What is the purpose of break statement and where it can be used.

```
33.#include <stdio.h>
int main()
{
int i = 1, j = 0;
while (i< 3, j<6)
{
i*=2;
j=j+1;
}
printf("%d, %d\n", i, j);
}
```

```
34.#include <stdio.h>
int main()
```



```

{
int i = 1, j = 0;
for(i=0;i<2;i++)
{
continue;
for(j=0;j<3;j++)
{
if(i==1)
break;
}
printf("%d %d",i,j);
}
printf("%d %d\n", i, j);
}

```

```

35.#include <stdio.h>
int main()
{
char c = '1';
while(c<53 || c<54 && c<55)
{
printf("%c ",c);
c+=2;
}
}

```

```

36.#include <stdio.h>
int main()
{
int a=0xa0;
char b=a>>7;
while(b)
{
switch(b+48)
{
case 1:printf("hai");
case '1':printf("hello");break;
}
b=!b;
}
}

```

```

37.#include <stdio.h>
int main() {
int val=10;
for(;;)
{
while(1)

```

```

{
break;
val^=6;
}
break;
}
printf("%d",val);
}

```

```

38.#include <stdio.h>
int main() {
int no=10;
l:
for(no++; ;no++)
{
printf("%d ",no+=2);
if(no==13)
goto l;
break;
}
}

```

```

39.#include<stdio.h>
int main()
{
    int k,j;
    for(k=0;k<=4;k++)
    {
        for(j=0;j<3;j++)
            if(j!=k)
                continue;
            else
                break;
        printf("%d,%d\n",k,j);
    }
}

```

```

40.#include<stdio.h>
int main()
{
    char ch=257;
    do
    {
        if(ch>2)
            continue;
        else
            printf("%d\n",ch);
    }while(ch>>2);
}

```

```
}
```

```
41.#include<stdio.h>
```

```
int main()
```

```
{
```

```
    int a=10;
```

```
label:
```

```
    while(1)
```

```
    {
```

```
        printf("hello\n");
```

```
        if(a++<15)
```

```
            goto label;
```

```
        else
```

```
            break;
```

```
    }
```

```
    printf("%d\n",a);
```

```
}
```

```
42.#include<stdio.h>
```

```
int main()
```

```
{
```

```
    int s=4>>3;
```

```
    while(!s)
```

```
    {
```

```
        switch(~s)
```

```
        {
```

```
            default:printf("default\n");break;
```

```
            case 0:printf("hai\n");break;
```

```
            case 1:printf("hello\n");break;
```

```
            case -1:printf("bye\n");
```

```
            default:printf("welcome\n");break;
```

```
        }
```

```
    }
```

```
}
```

```
43.#include<stdio.h>
```

```
int main()
```

```
{
```

```
    int a=20;
```

```
    float m=2,m2=4;
```

```
    for(;a>5;a++)
```

```
    {
```

```
        a=a^m;
```

```
        printf("%d",a);
```

```
        a=a^m2;
```

```
        printf("%d",a);
```

```
    }
```

```
}
```

```
44.#include<stdio.h>
```

```
int main()
```

```
{
```

```
    int k,a=2;
```

```
    while(k=sizeof('A'),a--)
```

```
    {
```

```
        printf("%d\n",k);
```

```
    }
```

```
}
```

```
45.#include<stdio.h>
```

```
int main()
```

```
{
```

```
    int n=5;
```

```
    do
```

```
    {
```

```
        switch(n>>1)
```

```
        {
```

```
            case 1:printf("case1\n");break;
```

```
            case 3:printf("case2\n");break;
```

```
            case 2:goto label;
```

```
        }
```

```
    }while(1);
```

```
label:
```

```
    printf("welcome\n");
```

```
}
```

```
46.#include<stdio.h>
```

```
main()
```

```
{
```

```
char ch= 'b' , ch1 = ch ;
```

```
for(;;)
```

```
{
```

```
ch = ch + '1';
```

```
ch1= ch1 - 32;
```

```
printf("ch= %d , ch1= %d \n", ch , ~ch1 );
```

```
break;
```

```
}
```

```
}
```

```
47.#include<stdio.h>
```

```
int main()
```

```
{
```

```
int coding='2'+ 05;
```

```

while(coding)
{
printf("%x \n",coding);
coding=!coding;
}
}

```

```

48.#include<stdio.h>
int main()
{
int x = 5, counter = 1 ;
while ( (x -1 ) )
{ ++counter ;
x -- ;
}
printf("%d ",counter);
}

```

```

49.#include <stdio.h>
int main()
{
    int i = 3;
    while (i--)
    {
        int i = 100;
        i--;
        printf("%d ", i);
    }
    return 0;
}

```

50. Write a program to find the sum of odd digits and product of even digits in a given number.

(Ex: no=12345

Sum of odd digits = 1+3+5=9

Product of even digits = 2*4=8

)