

Various Forms Of "for" Loop

```
for ( init ; test_cond ; stmt )  
{  
    ==  
    ==  
    ==  
}
```

① Initialization in "for" is optional

```
for ( ; test_cond ; stmt )  
{  
    ==  
    ==  
    ==  
}
```

```
int main ( )  
{  
    int n;  
    printf ("Enter a no:");  
    scanf ("%d", &n);  
    for ( ; n >= 1 ; n-- )  
        printf ("%d", n);  
    return 0;  
}
```

② ...start... in "for" is optional

```
for ( ; test-expr; )
{
    //
    //
    //
    start
}
```

```
int main ( )
```

```
{
    int n;
```

```
    printf("Enter a no:");
```

```
    scanf("%d", &n);
```

```
    for ( ; n >= 1; )
```

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

```
        n--;
```

```
    }
    return 0;
```

```
}
```

③ ...end... in "for" is optional

```
for ( ; ; )
{
    //
    //
    //
    start
}
```

X while ()

```
{
    //
    //
    //
}
```

if ()

```
{
    //
    //
    //
}
```

X do

```
{
    //
    //
    //
}
```

while ()

```
int main ( )
```

```
{
    int n;
```

```
    printf("Enter a no:");
```

```
    scanf("%d", &n);
```

```
    for ( ; ; Infinite )
```

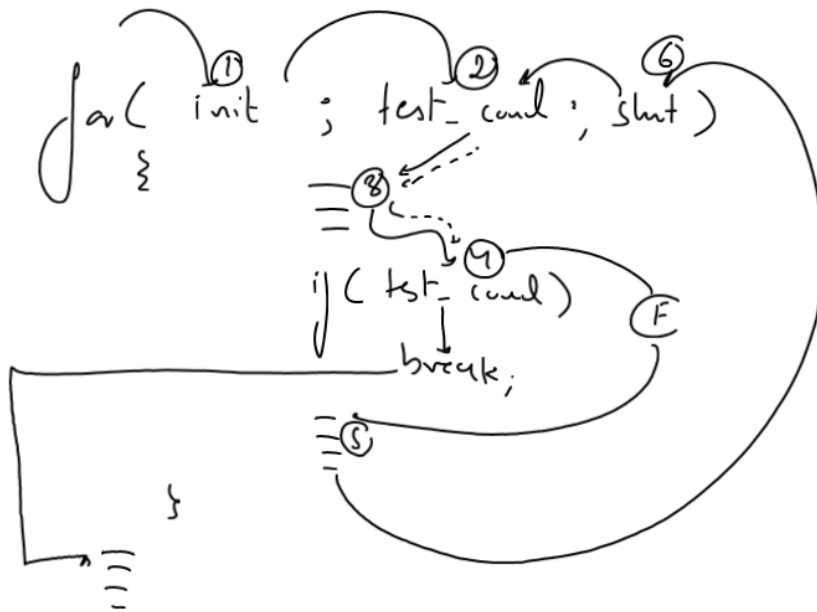
```
    {
        printf("\n %d", n);
```

```
        n--;
```

```
    }
    return 0;
```

```
}
```

Using "break" With Loop



```
for ( init ;      ; stmt )  
    {  
        if ( test_cond )  
            break;  
    }  
    }
```

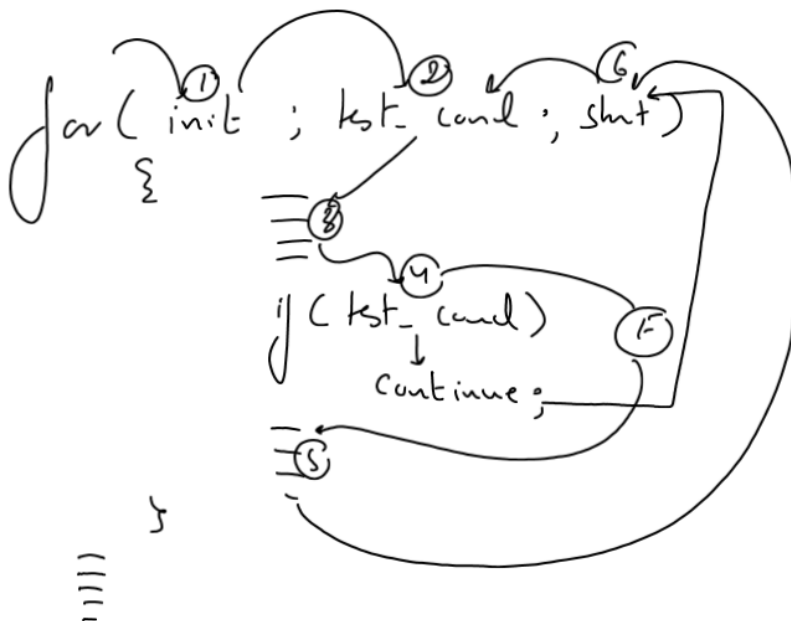
```

#include <stdio.h>
int main()
{
    int n;
    printf("Enter an int:");
    scanf("%d",&n);
    for(;; )
    {
        if(n<=0)
            break;
        printf("\n%d",n);
        n--;
    }

    return 0;
}

```

Using The Keyword "continue"



```
#include <stdio.h>
int main()
{
    int i;
    for(i=1;i<=10;i++)
    {
        if(i==6)
            break;
        printf("\n%d",i);
    }

    return 0;
}
```

OUTPUT:

=====

1
2
3
4
5

```
#include <stdio.h>
int main()
{
    int i;
    for(i=1;i<=10;i++)
    {
        if(i==6)
            continue;
        printf("\n%d",i);
    }

    return 0;
}
```

OUTPUT:

=====

1
2
3
4
5
7
8
9
10

```
#include <stdio.h>
int main()
{
    int i;
    for(i=1;i<=10;i++)
    {
        if(i%2==0)
            continue;
        printf("\n%d",i);
    }

    return 0;
}
```

OUTPUT:

=====

1
3
5
7
9