programming language(C)

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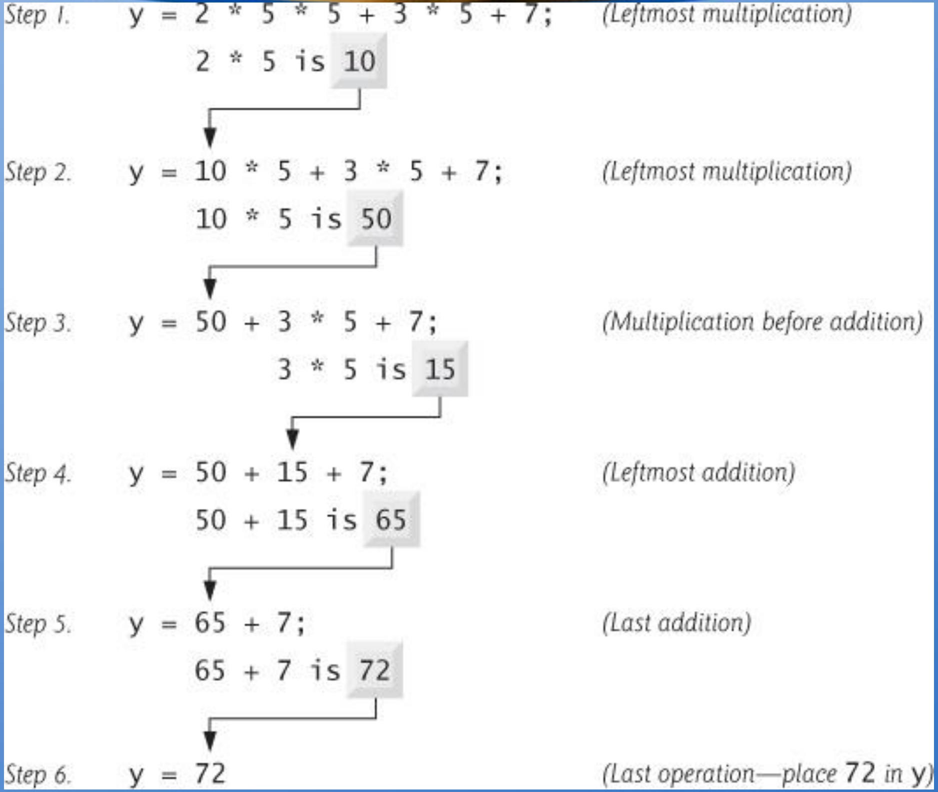
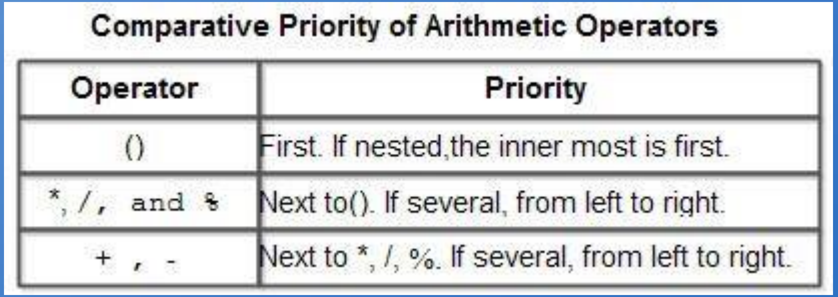
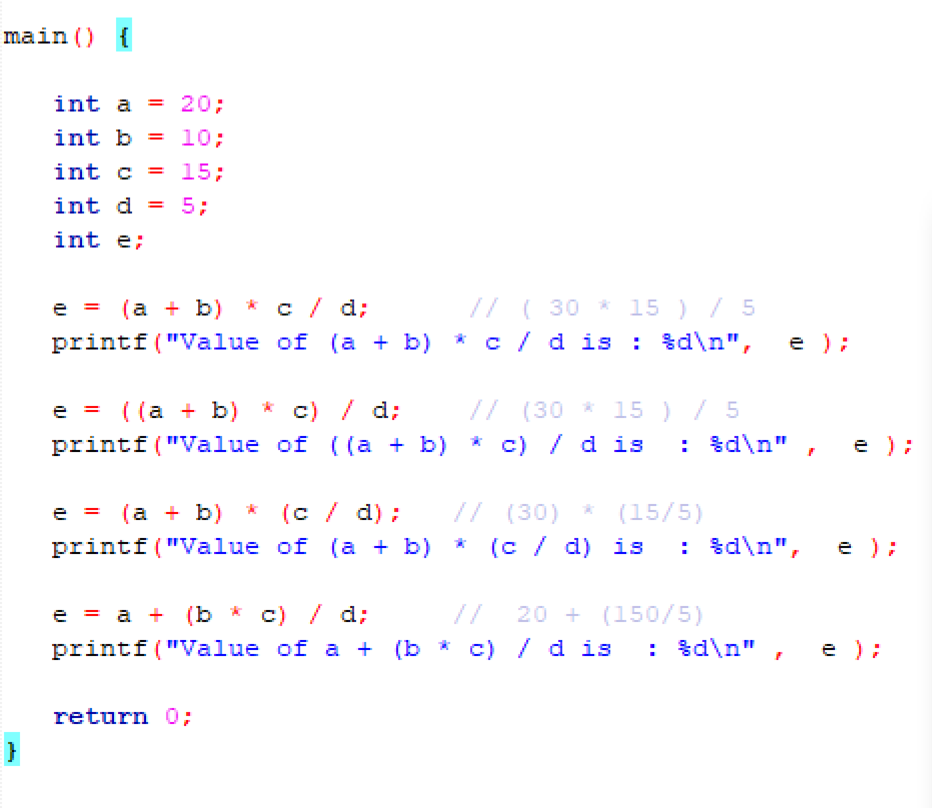


```
Step 1.   y = 2 * 5 * 5 + 3 * 5 + 7;     (Leftmost multiplication)
              2 * 5 is 10

Step 2.   y = 10 * 5 + 3 * 5 + 7;        (Leftmost multiplication)
              10 * 5 is 50

Step 3.   y = 50 + 3 * 5 + 7;            (Multiplication before addition)
                   3 * 5 is 15

Step 4.   y = 50 + 15 + 7;               (Leftmost addition)
              50 + 15 is 65

Step 5.   y = 65 + 7;                    (Last addition)
              65 + 7 is 72

Step 6.   y = 72                         (Last operation—place 72 in y)
```

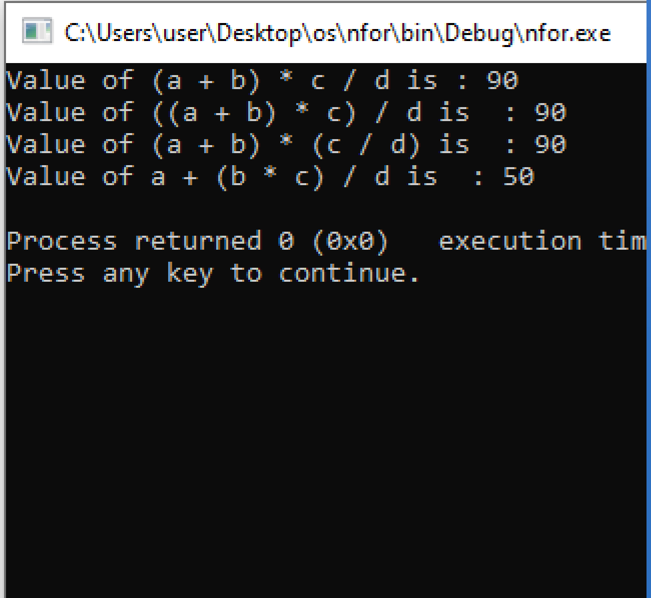


Comparative Priority of Arithmetic Operators

Operator	Priority
()	First. If nested,the inner most is first.
*, /, and %	Next to(). If several, from left to right.
+ , -	Next to *, /, %. If several, from left to right.



```
main() {

   int a = 20;
   int b = 10;
   int c = 15;
   int d = 5;
   int e;

   e = (a + b) * c / d;      // ( 30 * 15 ) / 5
   printf("Value of (a + b) * c / d is : %d\n",  e );

   e = ((a + b) * c) / d;    // (30 * 15 ) / 5
   printf("Value of ((a + b) * c) / d is  : %d\n" ,  e );

   e = (a + b) * (c / d);   // (30) * (15/5)
   printf("Value of (a + b) * (c / d) is  : %d\n",  e );

   e = a + (b * c) / d;     //  20 + (150/5)
   printf("Value of a + (b * c) / d is  : %d\n" ,  e );

   return 0;
}
```



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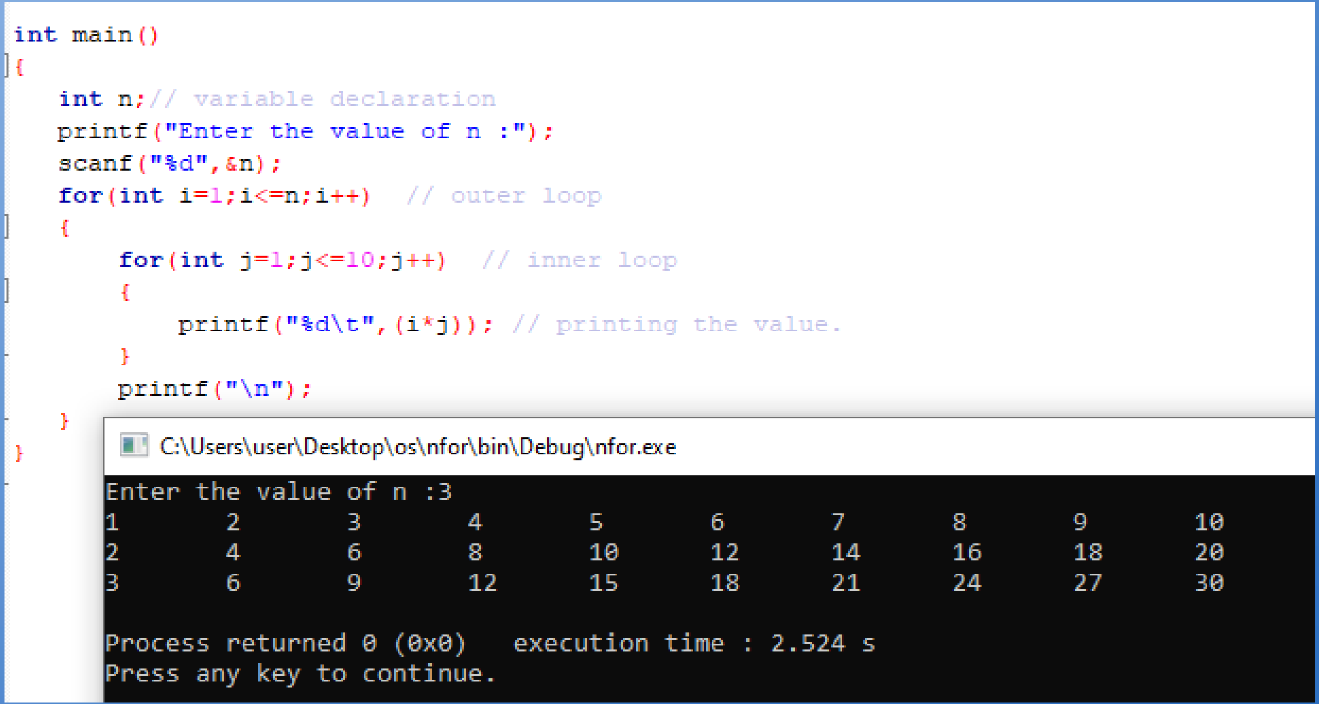
```
Value of (a + b) * c / d is : 90
Value of ((a + b) * c) / d is  : 90
Value of (a + b) * (c / d) is  : 90
Value of a + (b * c) / d is  : 50

Process returned 0 (0x0)   execution tim
Press any key to continue.
```



```
int main()
{
    int n;// variable declaration
    printf("Enter the value of n :");
    scanf("%d",&n);
    for(int i=1;i<=n;i++)  // outer loop
    {
        for(int j=1;j<=10;j++)  // inner loop
        {
            printf("%d\t",(i*j)); // printing the value.
        }
        printf("\n");
    }
}
```

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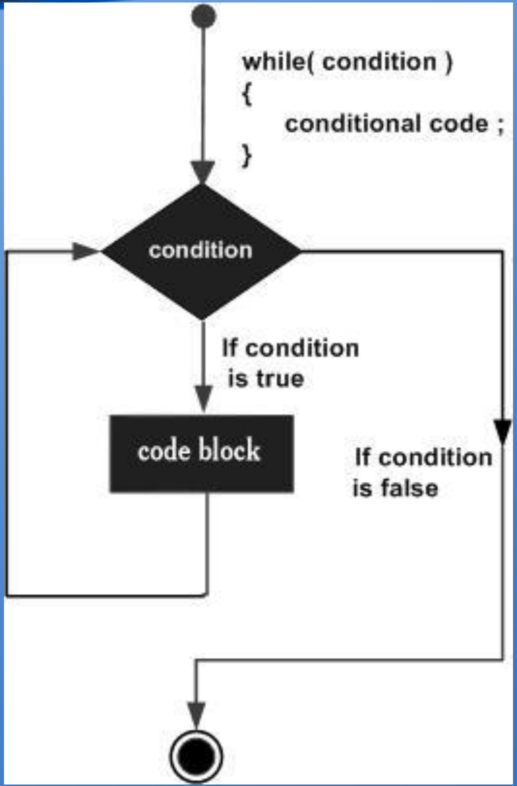
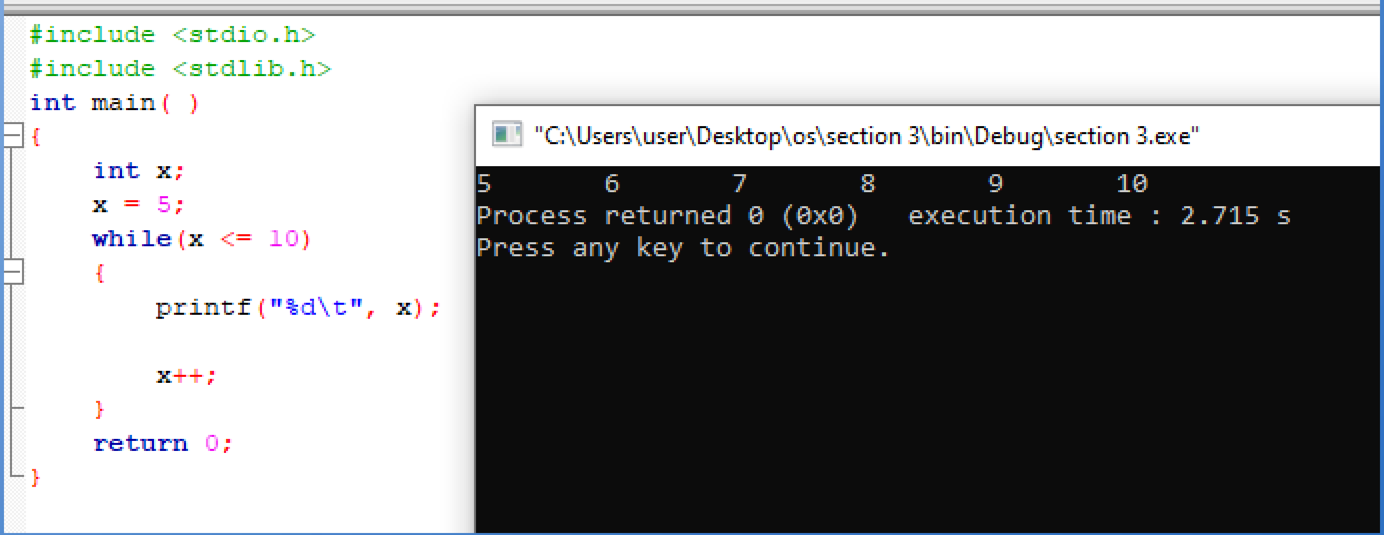
```
Enter the value of n :3
1       2       3       4       5       6       7       8       9       10
2       4       6       8       10      12      14      16      18      20
3       6       9       12      15      18      21      24      27      30

Process returned 0 (0x0)   execution time : 2.524 s
Press any key to continue.
```



```
while( condition )
{
    conditional code ;
}
```

Example 1



```
#include <stdio.h>
#include <stdlib.h>
int main( )
{
    int x;
    x = 5;
    while(x <= 10)
    {
        printf("%d\t", x);

        x++;
    }
    return 0;
}
```

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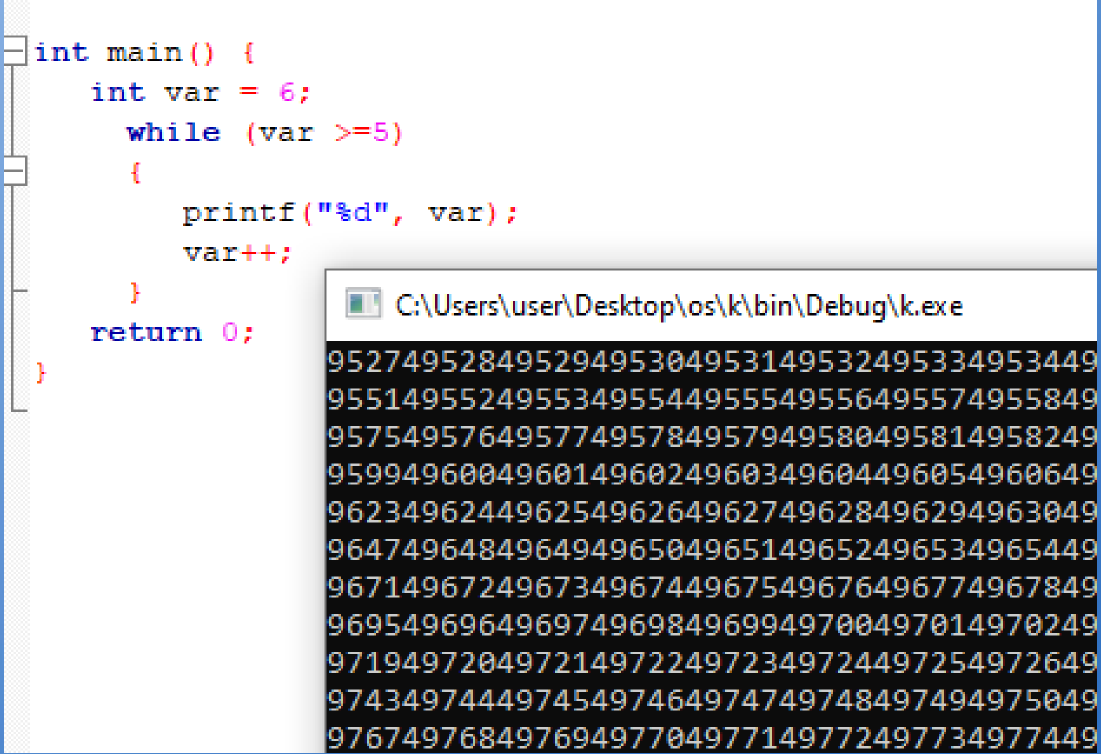
```
5       6       7       8       9       10
Process returned 0 (0x0)   execution time : 2.715 s
Press any key to continue.
```

Example 2



```
int main() {
    int var = 6;
      while (var >=5)
      {
         printf("%d", var);
         var++;
      }
    return 0;
}
```

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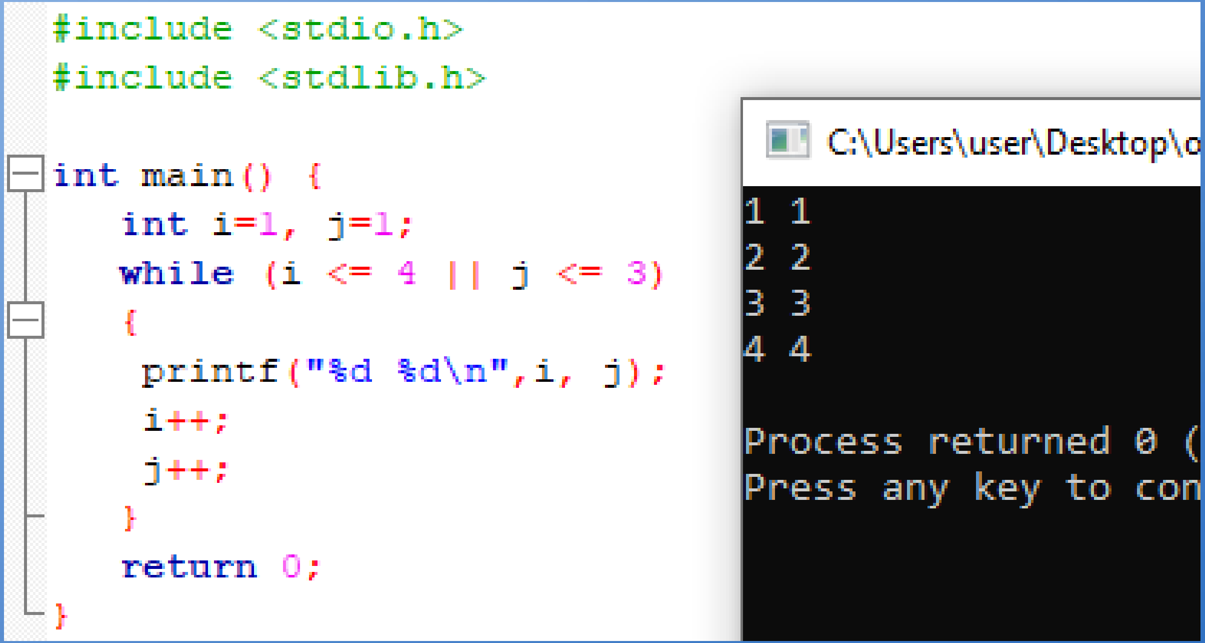
```
95274952849529495304953149532495334953449
95514955249553495544955549556495574955849
95754957649577495784957949580495814958249
95994960049601496024960349604496054960649
96234962449625496264962749628496294963049
96474964849649496504965149652496534965449
96714967249673496744967549676496774967849
96954969649697496984969949700497014970249
97194972049721497224972349724497254972649
97434974449745497464974749748497494975049
97674976849769497704977149772497734977449
```

Example 3



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

int main() {
    int i=1, j=1;
    while (i <= 4 || j <= 3)
    {
     printf("%d %d\n",i, j);
     i++;
     j++;
    }
    return 0;
}
```

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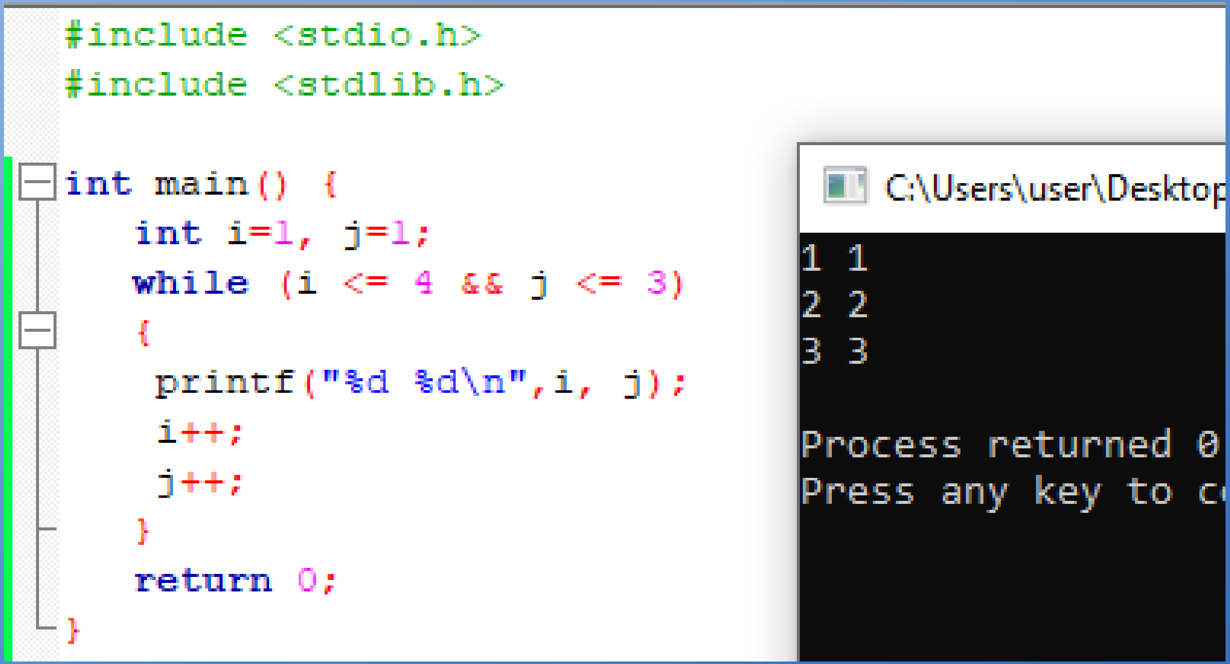
```
1 1
2 2
3 3
4 4

Process returned 0 (
Press any key to con
```

Example 4



```c
#include <stdio.h>
#include <stdlib.h>

int main() {
    int i=1, j=1;
    while (i <= 4 && j <= 3)
    {
     printf("%d %d\n",i, j);
     i++;
     j++;
    }
    return 0;
}
```

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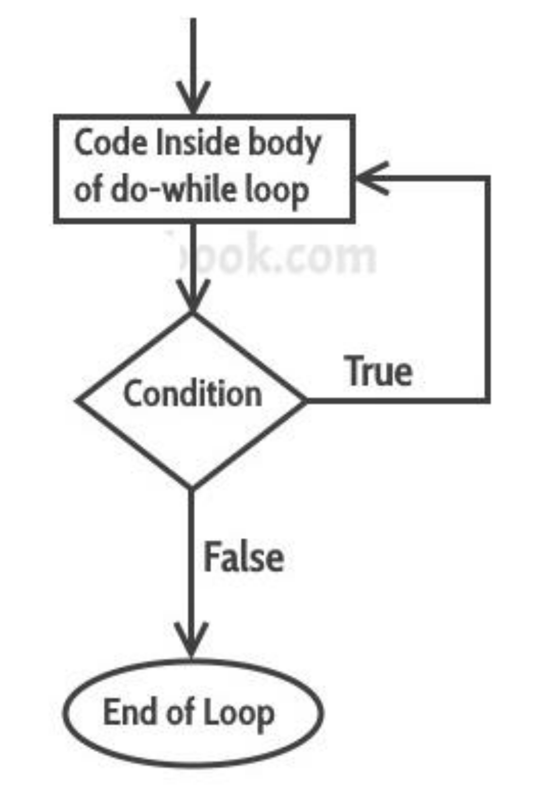
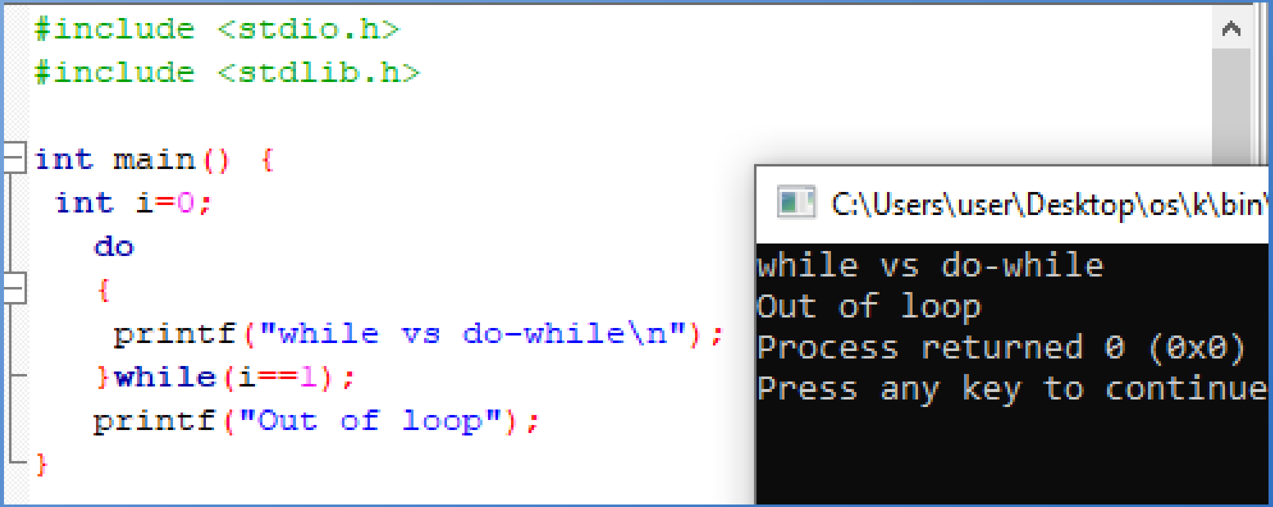
```
1 1
2 2
3 3

Process returned 0
Press any key to c
```



Code Inside body of do-while loop
Condition
True
False
End of Loop

Example 5

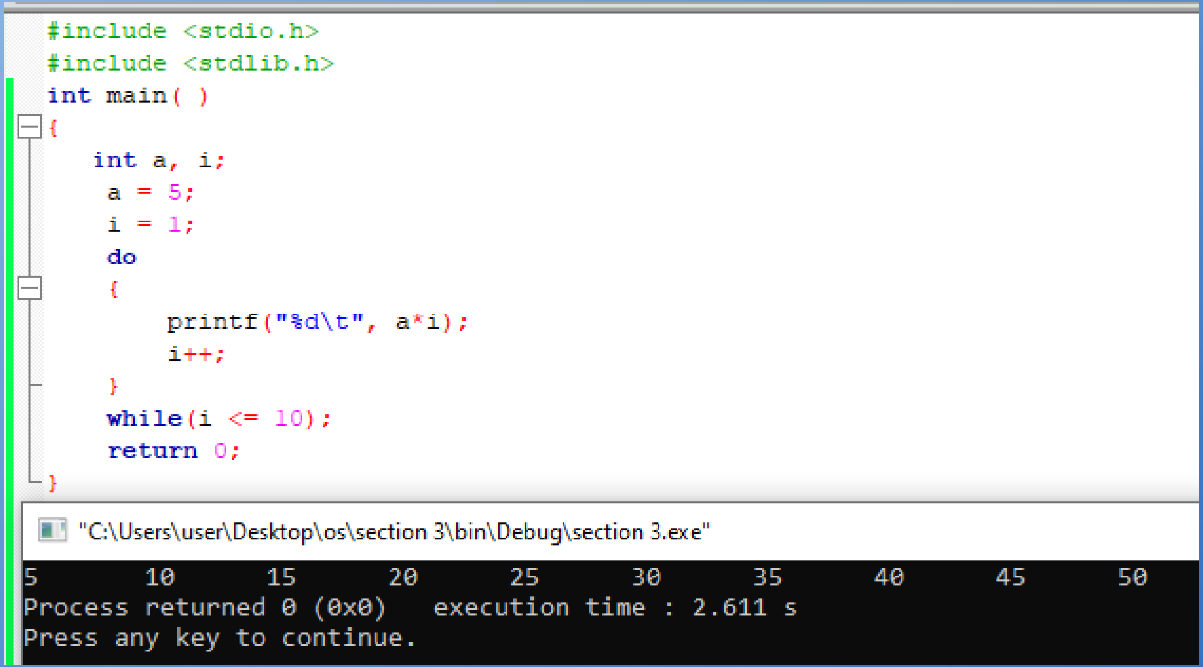


```c
#include <stdio.h>
#include <stdlib.h>

int main() {
 int i=0;
   do
   {
    printf("while vs do-while\n");
   }while(i==1);
   printf("Out of loop");
}
```

```
while vs do-while
Out of loop
Process returned 0 (0x0)
Press any key to continue
```

Example 6

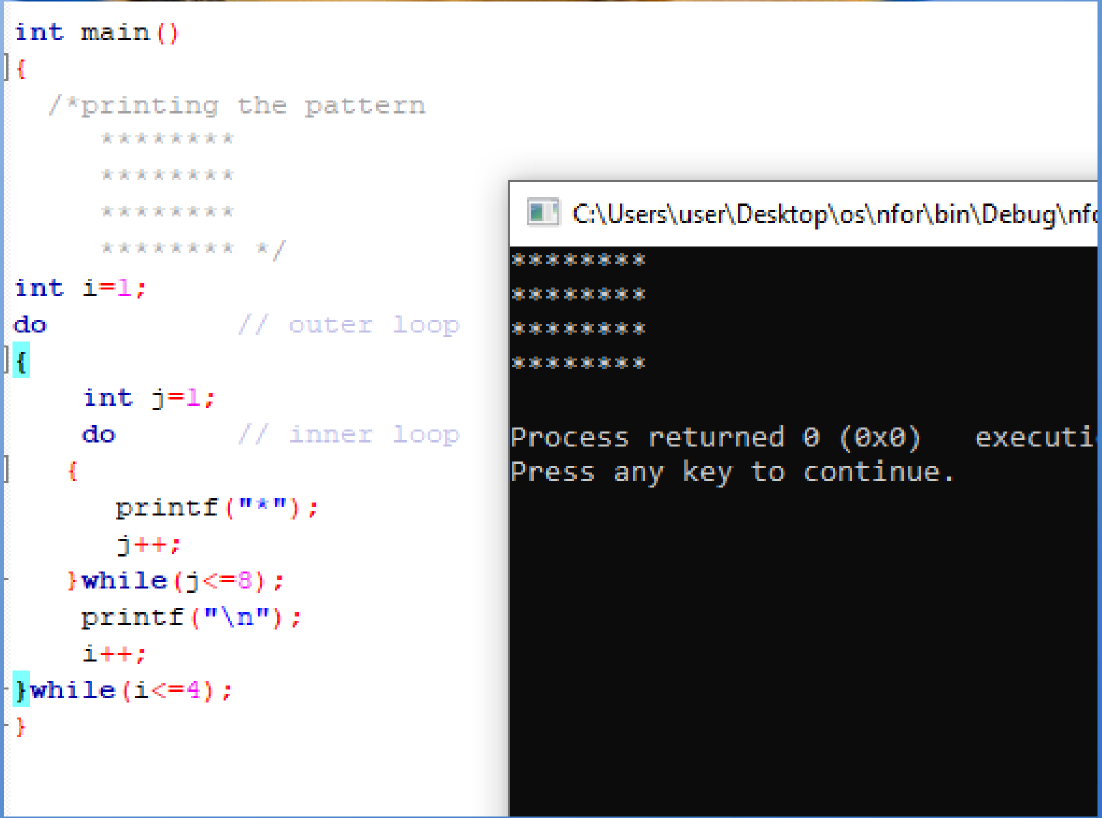


```c
#include <stdio.h>
#include <stdlib.h>
int main( )
{
   int a, i;
    a = 5;
    i = 1;
    do
    {
        printf("%d\t", a*i);
        i++;
    }
    while(i <= 10);
    return 0;
}
```

"C:\Users\user\Desktop\os\section 3\bin\Debug\section 3.exe"

```
5       10      15      20      25      30      35      40      45      50
Process returned 0 (0x0)   execution time : 2.611 s
Press any key to continue.
```

Example 7



```
int main()
{
  /*printing the pattern
     ********
     ********
     ********
     ******** */
int i=1;
do              // outer loop
{
    int j=1;
    do          // inner loop
   {
      printf("*");
      j++;
   }while(j<=8);
    printf("\n");
    i++;
}while(i<=4);
}
```

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```
********
********
********
********


Process returned 0 (0x0)   executi
Press any key to continue.
```

Thank You