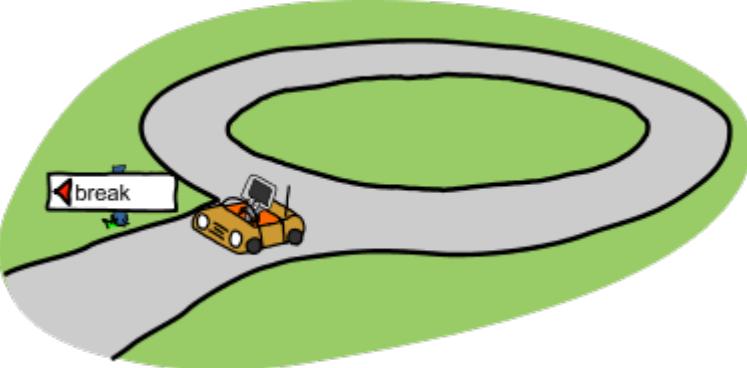


# Döngüler



Suhap SAHIN  
Onur GÖK

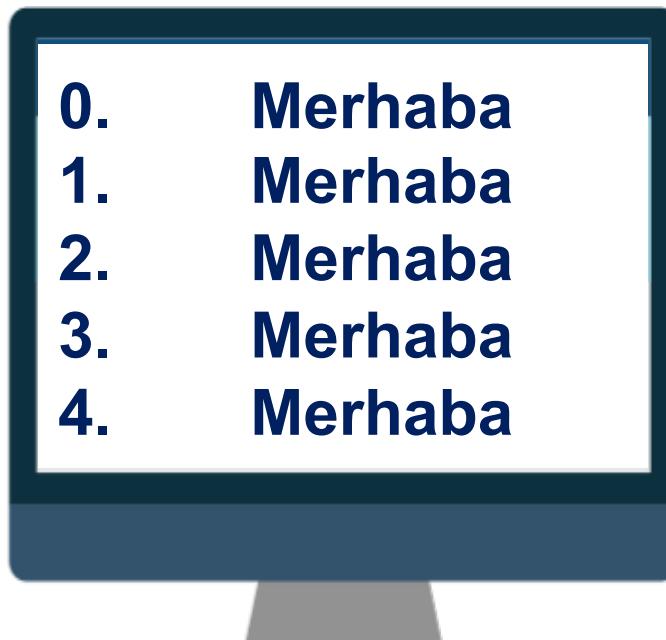


# Döngü

Bazı kodların **DEFALARCA** çalıştırılması gerekiyorsa

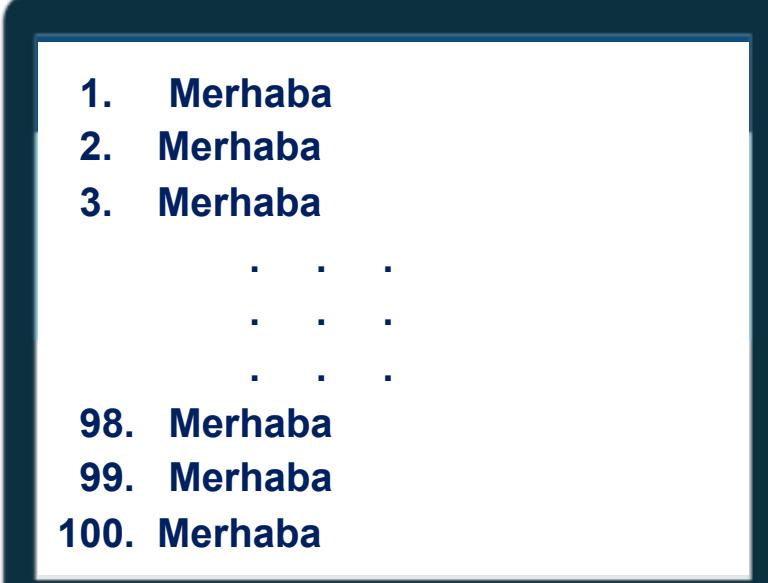


# Döngü



- 0. Merhaba
- 1. Merhaba
- 2. Merhaba
- 3. Merhaba
- 4. Merhaba

# Döngü

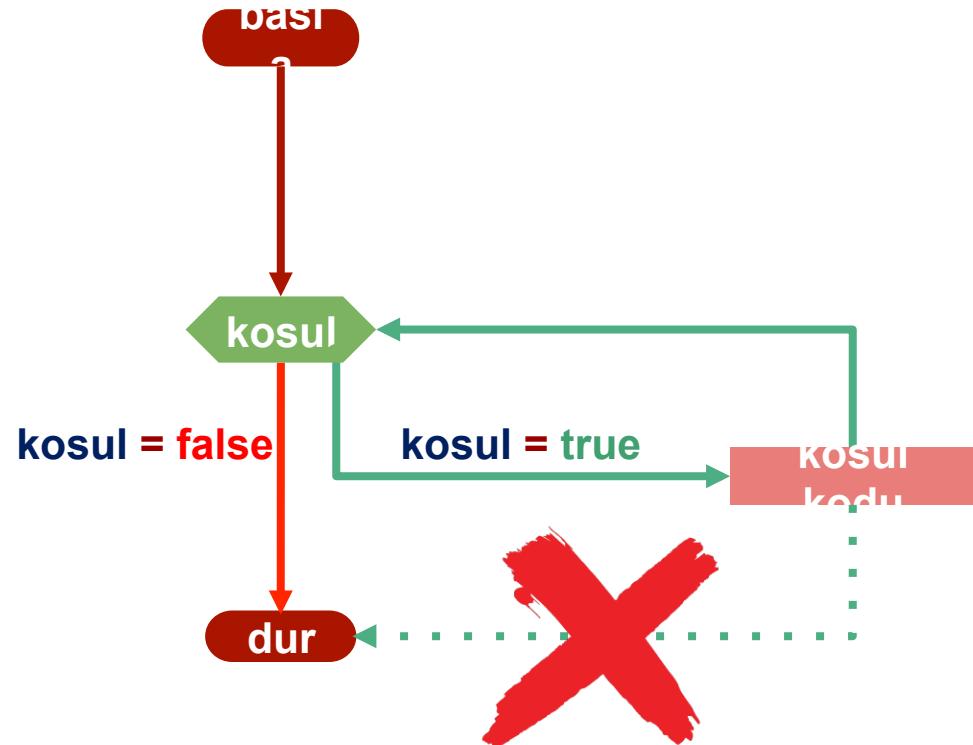
- 
- The image shows a computer monitor with a dark blue frame and a light blue base. The screen displays a white background with a list of 100 items, each consisting of a number followed by the word "Merhaba". The numbers are arranged in five rows of four, with ellipses indicating the continuation of the list. The text is in a dark blue sans-serif font.
- 1. Merhaba
  - 2. Merhaba
  - 3. Merhaba
  - ...
  - ...
  - ...
  - ...
  - 98. Merhaba
  - 99. Merhaba
  - 100. Merhaba

# Döngü

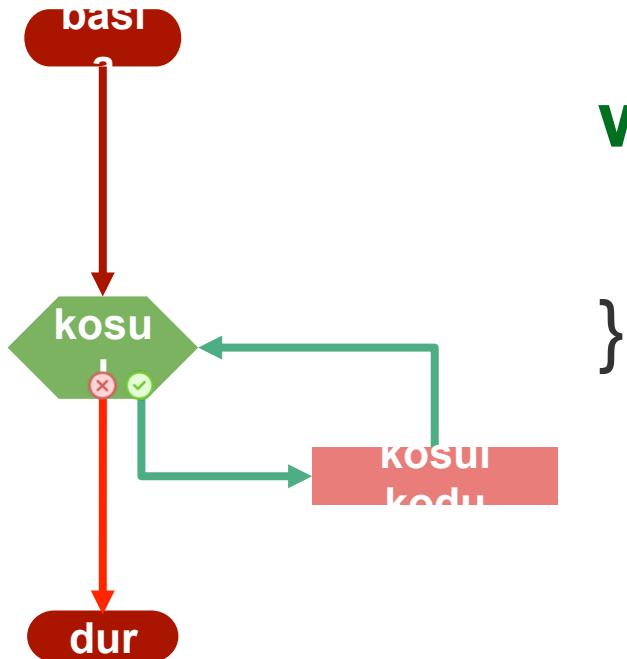
KOSUL

?

TRUE      FALSE



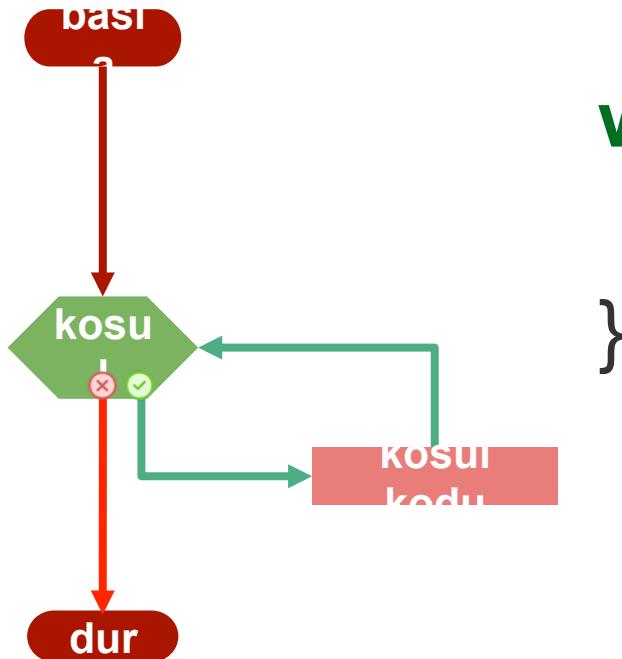
# while



while( ){



# while



```
while(kosul){  
    kosul kodu;  
}
```



# while

```
1 #include <stdio.h>
2 void main() {
3     int i = 0;
4     while ( i < 5 ) {
5         printf("%d. Merhaba\n",i);
6         i = i + 1;
7     }
8 }
```

# while

```
1 #include <stdio.h>
2 void main() {
3     int i = 0;
4     while ( i < 5 ) {
5         printf("%d. Merhaba\n",i);
6         i = i + 1;
7     }
8 }
```

i

0

# while

```
1 #include <stdio.h>
2 void main() {
3     int i = 0;
4     while ( i < 5 ) {
5         printf("%d. Merhaba\n",i);
6         i = i + 1;
7     }
8 }
```

i      0 < 5

# while

```
1 #include <stdio.h>
2 void main() {
3     int i = 0;
4     while ( i < 5 ) {
5         printf("%d. Merhaba\n",i);
6         i = i + 1;
7     }
8 }
```

0. Merhaba

i 0

# while

```
1 #include <stdio.h>
2 void main() {
3     int i = 0;
4     while ( i < 5 ) {
5         printf("%d. Merhaba\n",i);
6         i = i + 1;
7     }
8 }
```

## 0. Merhaba



i

1

# while

```
1 #include <stdio.h>
2 void main() {
3     int i = 0;
4     while ( i < 5 ) {
5         printf("%d. Merhaba\n",i);
6         i = i + 1;
7     }
8 }
```

## 0. Merhaba

i 1

# while

```
1 #include <stdio.h>
2 void main() {
3     int i = 0;
4     while ( i < 5 ) {
5         printf("%d. Merhaba\n",i);
6         i = i + 1;
7     }
8 }
```

## 0. Merhaba

i      1 < 5

# while

```
1 #include <stdio.h>
2 void main() {
3     int i = 0;
4     while ( i < 5 ) {
5         printf("%d. Merhaba\n",i);
6         i = i + 1;
7     }
8 }
```

- 0. Merhaba
- 1. Merhaba

i → 1

# while

```
1 #include <stdio.h>
2 void main() {
3     int i = 0;
4     while ( i < 5 ) {
5         printf("%d. Merhaba\n",i);
6         i = i + 1;
7     }
8 }
```

- 0. Merhaba
- 1. Merhaba

i 2

# while

```
1 #include <stdio.h>
2 void main() {
3     int i = 0;
4     while ( i < 5 ) {
5         printf("%d. Merhaba\n",i);
6         i = i + 1;
7     }
8 }
```

- 0. Merhaba
- 1. Merhaba

i 2

# while

```
1 #include <stdio.h>
2 void main() {
3     int i = 0;
4     while ( i < 5 ) {
5         printf("%d. Merhaba\n",i);
6         i = i + 1;
7     }
8 }
```

- 0. Merhaba
- 1. Merhaba

i      2 < 5

# while

```
1 #include <stdio.h>
2 void main() {
3     int i = 0;
4     while ( i < 5 ) {
5         printf("%d. Merhaba\n",i);
6         i = i + 1;
7     }
8 }
```

- 0. Merhaba
- 1. Merhaba
- 2. Merhaba

i → 2

# while

```
1 #include <stdio.h>
2 void main() {
3     int i = 0;
4     while ( i < 5 ) {
5         printf("%d. Merhaba\n",i);
6         i = i + 1;
7     }
8 }
```

- 0. Merhaba
- 1. Merhaba
- 2. Merhaba

i 3

# while

```
1 #include <stdio.h>
2 void main() {
3     int i = 0;
4     while ( i < 5 ) {
5         printf("%d. Merhaba\n",i);
6         i = i + 1;
7     }
8 }
```

- 0. Merhaba
- 1. Merhaba
- 2. Merhaba

i 3

# while

```
1 #include <stdio.h>
2 void main() {
3     int i = 0;
4     while ( i < 5 ) {
5         printf("%d. Merhaba\n",i);
6         i = i + 1;
7     }
8 }
```

- 0. Merhaba
- 1. Merhaba
- 2. Merhaba

i      3 < 5

# while

```
1 #include <stdio.h>
2 void main() {
3     int i = 0;
4     while ( i < 5 ) {
5         printf("%d. Merhaba\n",i);
6         i = i + 1;
7     }
8 }
```

- 0. Merhaba
- 1. Merhaba
- 2. Merhaba
- 3. Merhaba

i → 3

# while

```
1 #include <stdio.h>
2 void main() {
3     int i = 0;
4     while ( i < 5 ) {
5         printf("%d. Merhaba\n",i);
6         i = i + 1;
7     }
8 }
```

- 0. Merhaba
- 1. Merhaba
- 2. Merhaba
- 3. Merhaba

i → 4

# while

```
1 #include <stdio.h>
2 void main() {
3     int i = 0;
4     while ( i < 5 ) {
5         printf("%d. Merhaba\n",i);
6         i = i + 1;
7     }
8 }
```

- 0. Merhaba
- 1. Merhaba
- 2. Merhaba
- 3. Merhaba

i → 4

# while

```
1 #include <stdio.h>
2 void main() {
3     int i = 0;
4     while ( i < 5 ) {
5         printf("%d. Merhaba\n",i);
6         i = i + 1;
7     }
8 }
```

- 0. Merhaba
- 1. Merhaba
- 2. Merhaba
- 3. Merhaba

i → 4 < 5

# while

```
1 #include <stdio.h>
2 void main() {
3     int i = 0;
4     while ( i < 5 ) {
5         printf("%d. Merhaba\n",i);
6         i = i + 1;
7     }
8 }
```

- 0. Merhaba
- 1. Merhaba
- 2. Merhaba
- 3. Merhaba
- 4. Merhaba

i → 4

# while

```
1 #include <stdio.h>
2 void main() {
3     int i = 0;
4     while ( i < 5 ) {
5         printf("%d. Merhaba\n",i);
6         i = i + 1;
7     }
8 }
```

- 0. Merhaba
- 1. Merhaba
- 2. Merhaba
- 3. Merhaba
- 4. Merhaba

i → 5

# while

```
1 #include <stdio.h>
2 void main() {
3     int i = 0;
4     while ( i < 5 ) {
5         printf("%d. Merhaba\n",i);
6         i = i + 1;
7     }
8 }
```

- 0. Merhaba
- 1. Merhaba
- 2. Merhaba
- 3. Merhaba
- 4. Merhaba

A diagram illustrating the state of variable *i*. It consists of two horizontal bars: a red one on the left containing the letter *i*, and a grey one on the right containing the number 5. An arrow points from the red bar to the grey bar, indicating the mapping between the variable name and its current value.

# while

```
1 #include <stdio.h>
2 void main() {
3     int i = 0;
4     while ( i < 5 ) {
5         printf("%d. Merhaba\n",i);
6         i = i + 1;
7     }
8 }
```

- 0. Merhaba
- 1. Merhaba
- 2. Merhaba
- 3. Merhaba
- 4. Merhaba

i

5 X 5

# while

```
1 #include <stdio.h>
2 void main() {
3     int i = 0;
4     while ( i < 5 ) {
5         printf("%d. Merhaba\n",i);
6         i = i + 1;
7     }
8 }
```

- 0. Merhaba
- 1. Merhaba
- 2. Merhaba
- 3. Merhaba
- 4. Merhaba

i → 5

# while

```
#include <stdio.h>
int main () {
    int a = 10;
    while(      ) {
        }
    return 0;
}
```

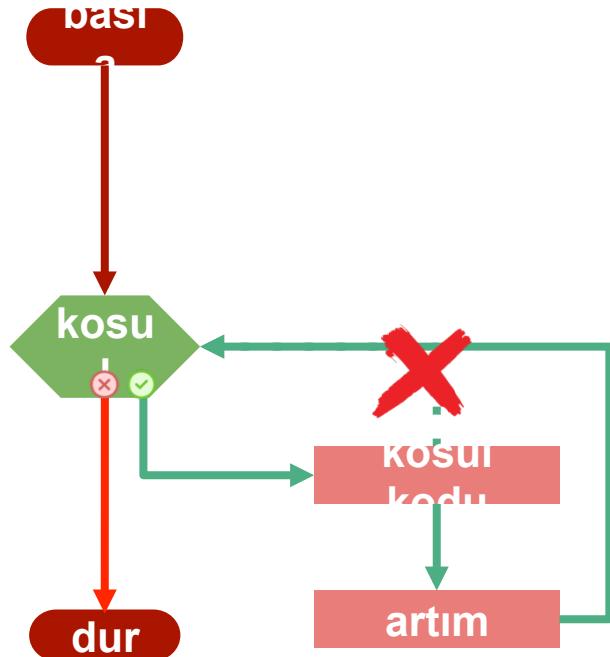


# while

```
#include <stdio.h>
int main () {
    int a = 10;
    while( a < 20 ) {
        a++;
        printf("a değeri: %d\n", a);
    }
    return 0;
}
```



# for

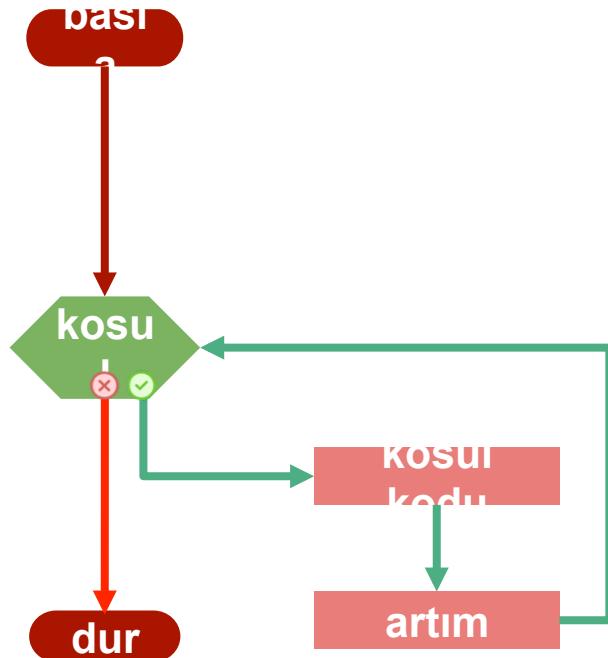


for(

}

L C P

# for



```
for( baslangic; kosul; artim ){  
    kosul kodu;  
}
```

L C P

# for

```
1 #include <stdio.h>
2 int main() {
3     int i;
4     for( i = 10; i < 12; i++ ){
5         printf("%d. Merhaba\n",i);
6     }
7     return 0;
8 }
```

# for

```
1 #include <stdio.h>
2 int main() {
3     int i;
4     for( i = 10; i < 12; i++ ){
5         printf("%d. Merhaba\n",i);
6     }
7     return 0;
8 }
```

i

# for

```
1 #include <stdio.h>
2 int main() {
3     int i;
4     for( i = 10; i < 12; i++ ){
5         printf("%d. Merhaba\n",i);
6     }
7     return 0;
8 }
```

i

10

# for

```
1 #include <stdio.h>
2 int main() {
3     int i;
4     for( i = 10; i < 12; i++ ){
5         printf("%d. Merhaba\n",i);
6     }
7     return 0;
8 }
```

## 10. Merhaba

i

10

# for

```
1 #include <stdio.h>
2 int main() {
3     int i;
4     for( i = 10; i < 12; i++ ){
5         printf("%d. Merhaba\n",i);
6     }
7     return 0;
8 }
```

## 10. Merhaba

i

10

# for

```
1 #include <stdio.h>
2 int main() {
3     int i;
4     for( i = 10; i < 12; i++ ){
5         printf("%d. Merhaba\n",i);
6     }
7     return 0;
8 }
```

## 10. Merhaba

i

11

# for

```
1 #include <stdio.h>
2 int main() {
3     int i;
4     for( i = 10; i < 12; i++ ){
5         printf("%d. Merhaba\n",i);
6     }
7     return 0;
8 }
```

## 10. Merhaba

i

11 < 12

# for

```
1 #include <stdio.h>
2 int main() {
3     int i;
4     for( i = 10; i < 12; i++ ){
5         printf("%d. Merhaba\n",i);
6     }
7     return 0;
8 }
```

10. Merhaba  
11.  
Merhaba

i

11

# for

```
1 #include <stdio.h>
2 int main() {
3     int i;
4     for( i = 10; i < 12; i++ ){
5         printf("%d. Merhaba\n",i);
6     }
7     return 0;
8 }
```

10. Merhaba  
11.  
Merhaba

i

11

# for

```
1 #include <stdio.h>
2 int main() {
3     int i;
4     for( i = 10; i < 12; i++ ){
5         printf("%d. Merhaba\n",i);
6     }
7     return 0;
8 }
```

i

12

10. Merhaba  
11.  
Merhaba

# for

```
1 #include <stdio.h>
2 int main() {
3     int i;
4     for( i = 10; i < 12; i++ ){
5         printf("%d. Merhaba\n",i);
6     }
7     return 0;
8 }
```

i

12 X 12

10. Merhaba  
11.  
Merhaba

# for

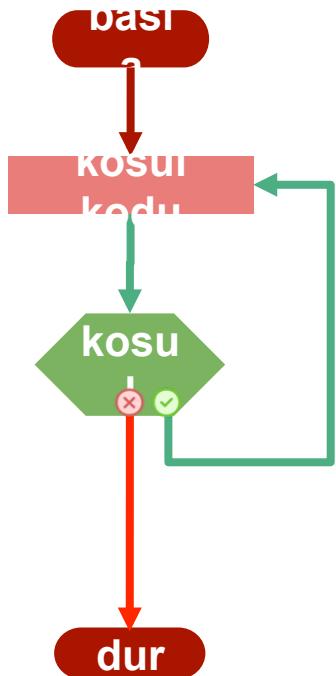
```
1 #include <stdio.h>
2 int main() {
3     int i;
4     for( i = 10; i < 12; i++ ){
5         printf("%d. Merhaba\n",i);
6     }
7     return 0;
8 }
```

10. Merhaba  
11.  
Merhaba

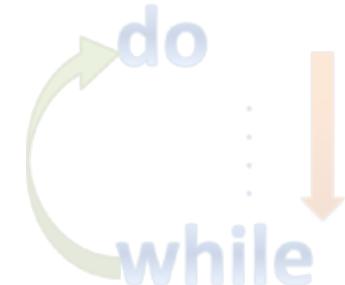
8 }

i 12

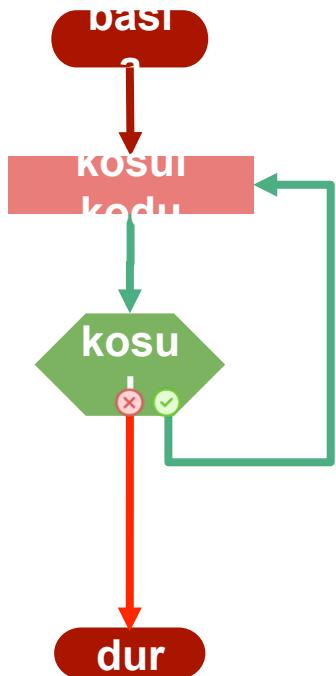
# do while



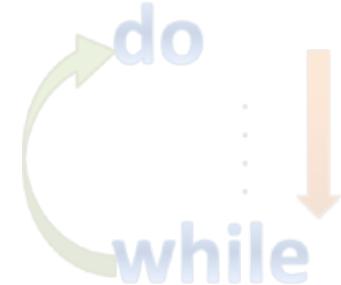
do{  
}while( )



# do while



```
do{  
    kosul kodu;  
}while( kosul)
```

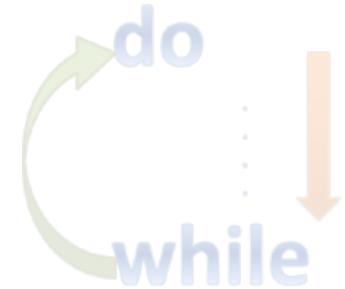


# do while

```
#include <stdio.h>
int main () {
    int a = 10;

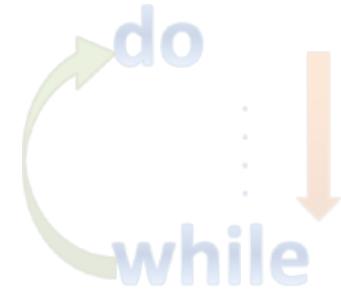
    do {
        printf ("%d\n", a);
        a--;
    } while (a >= 0);

    return 0;
}
```



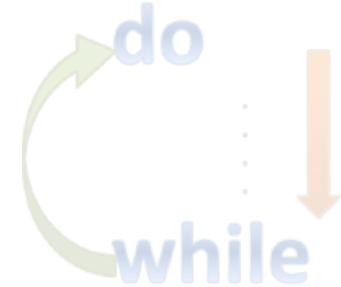
# do while

```
#include <stdio.h>
int main () {
    int a = 10;
    do {
        }while( );
    return 0;
}
```



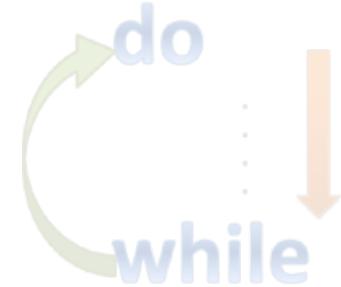
# do while

```
#include <stdio.h>
int main () {
    int a = 10;
    do {
        printf("value of a: %d\n", a);
        a = a + 1;
    }while(      );
    return 0;
}
```

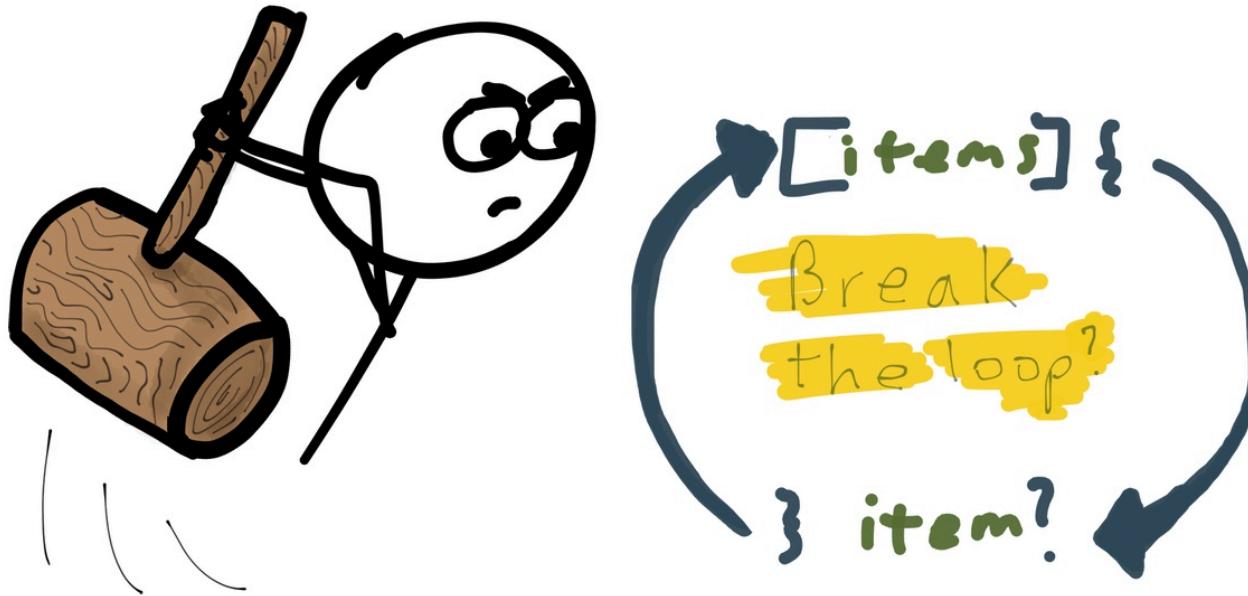


# do while

```
#include <stdio.h>
int main () {
    int a = 10;
    do {
        printf("value of a: %d\n", a);
        a = a + 1;
    }while( a < 20 );
    return 0;
}
```

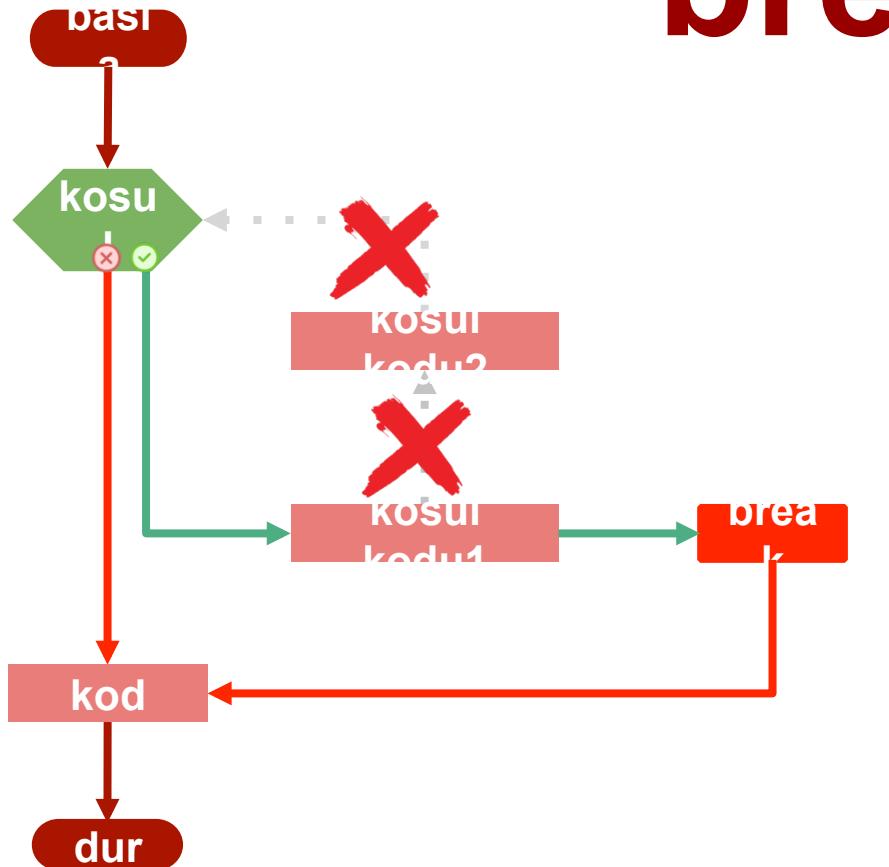


# break



# break

```
while( kosul){
```

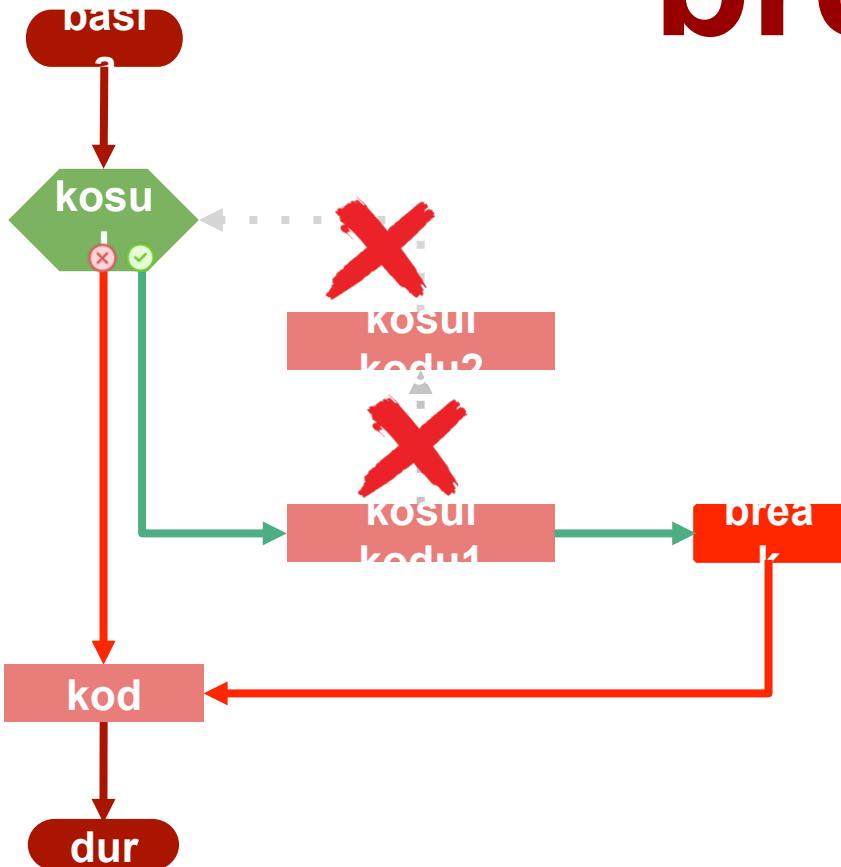


```
}
```

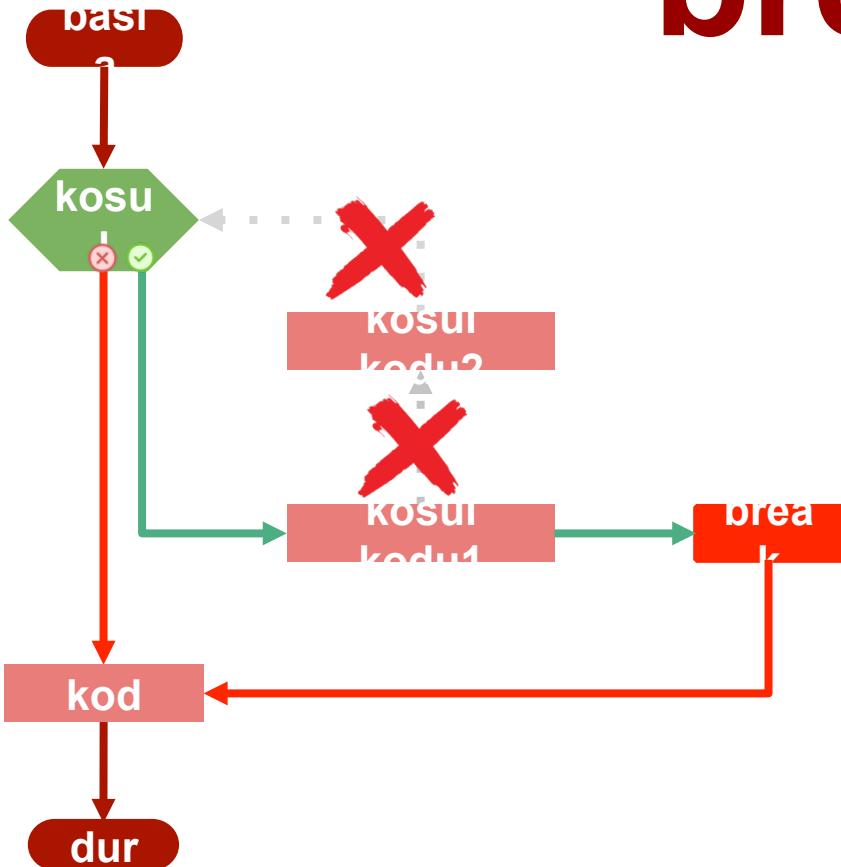
```
kod;
```

# break



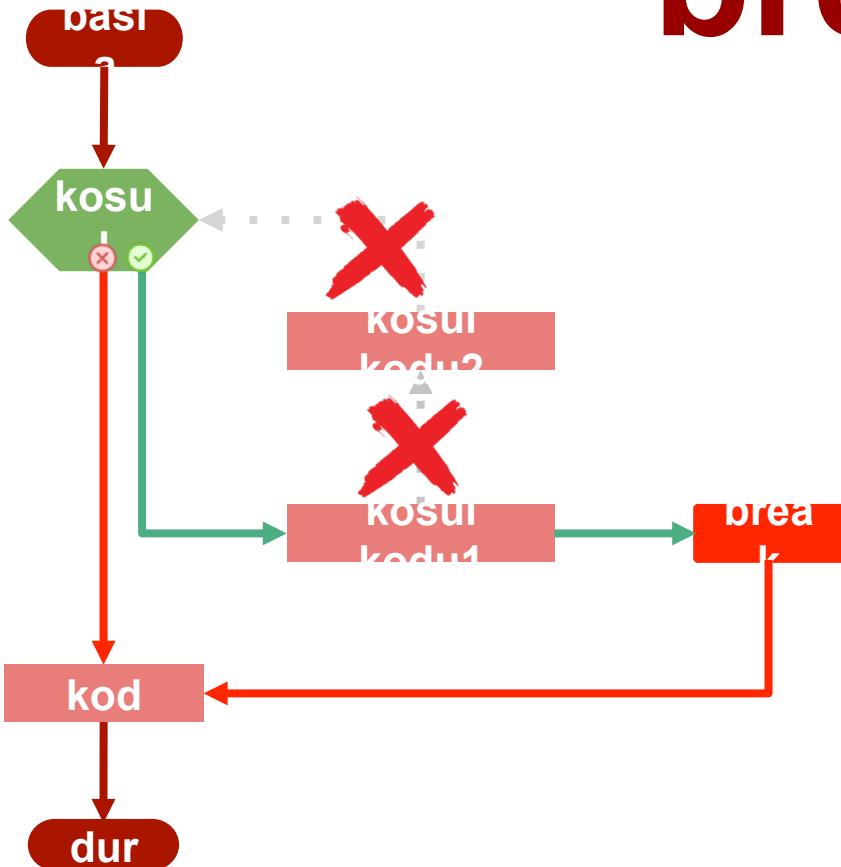
```
while( kosul){  
    kosul_kodu1;  
    kosul_kodu2;  
}  
kod;
```

# break



```
while( kosul){  
    kosul_kodu1;  
    break;  
    kosul_kodu2;  
}  
kod;
```

# break



```
while( kosul){  
    kosul_kodu1;  
    break;  
    kosul_kodu2;  
}  
kod;
```

# break

```
#include <stdio.h>
int main () {
    int a = 10;
    while( a < 20 ) {
        printf("a değeri: %d\n", a);
        a++;
    }
    return 0;
}
```



# break

```
#include <stdio.h>
int main () {
    int a = 10;
    while( a < 20 ) {
        printf("a değeri: %d\n", a);
        a++;
        if( a > 15) {

    }
}
return 0;
}
```

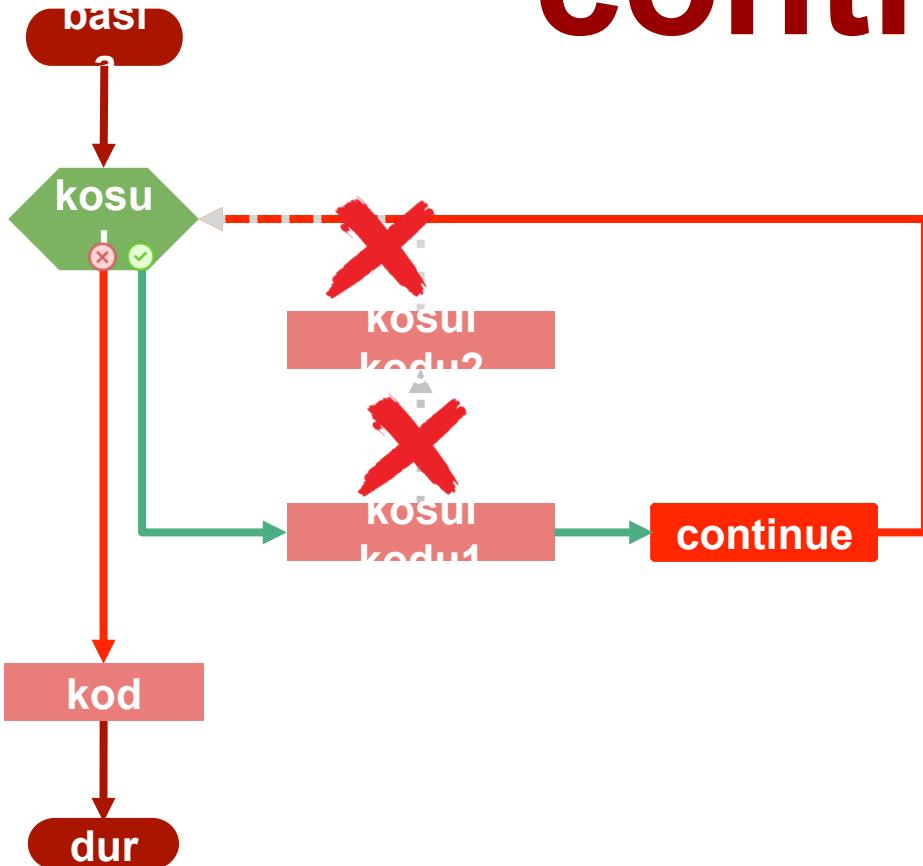


# break

```
#include <stdio.h>
int main () {
    int a = 10;
    while( a < 20 ) {
        printf("a değeri: %d\n", a);
        a++;
        if( a > 15) {
            break;
        }
    }
    return 0;
}
```

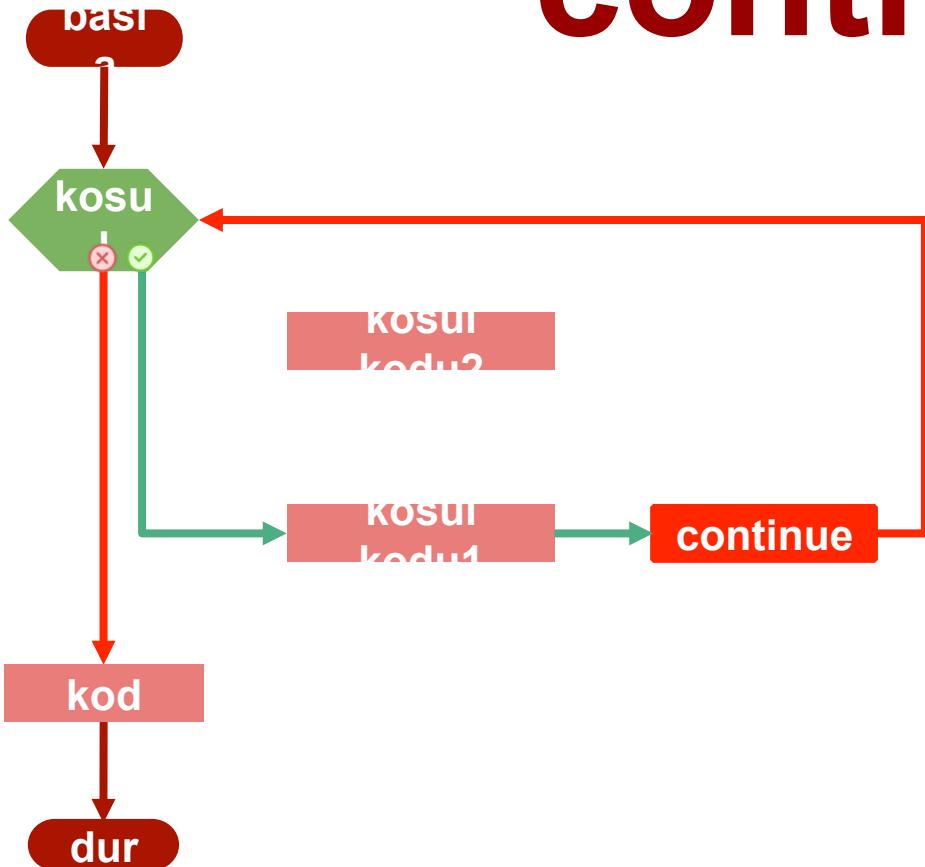


# continue



```
while( kosul){  
    kosul_kodu1;  
  
    kosul_kodu2;  
}  
kod;
```

# continue



```
while( kosul){  
    kosul_kodu1;  
    continue,  
    kosul_kodu2;  
}  
kod;
```

# continue

```
#include <stdio.h>
int main () {
    int a = 10;
    do {
        }
    } while( a < 20 );
    return 0;
}
```

# continue

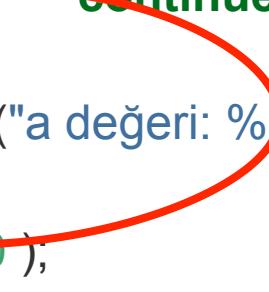
```
#include <stdio.h>
int main () {
    int a = 10;
    do {
        printf("a değeri: %d\n", a);
        a++;
    } while( a < 20 );
    return 0;
}
```

# continue

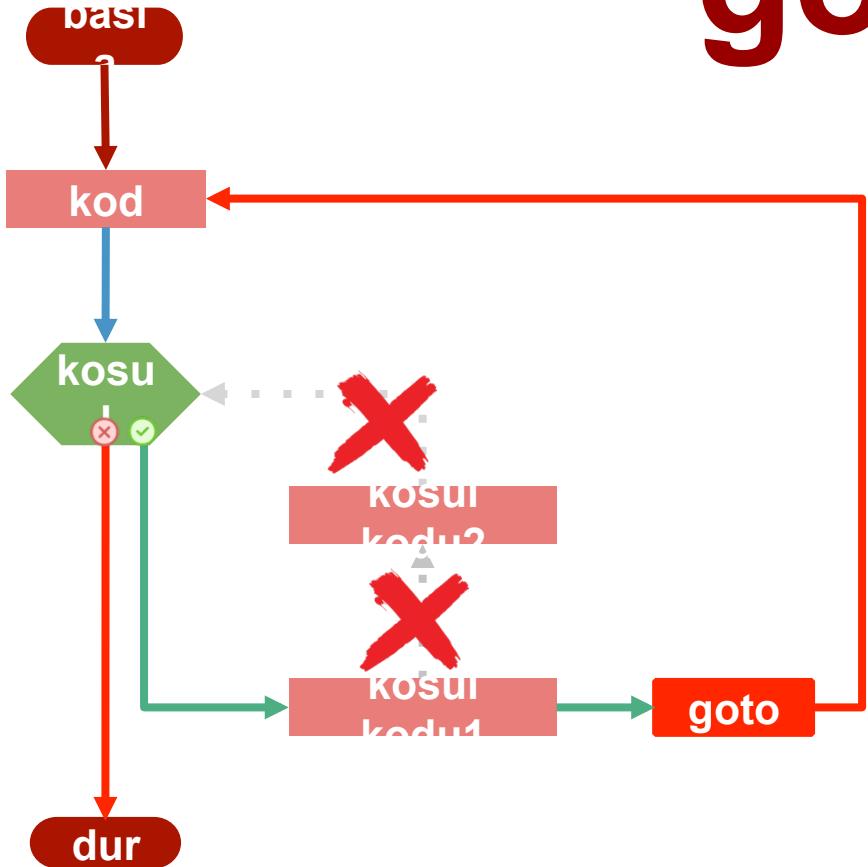
```
#include <stdio.h>
int main () {
    int a = 10;
    do {
        if( a == 15) {
            a = a + 1;
        }
        printf("a değeri: %d\n", a);
        a++;
    } while( a < 20 );
    return 0;
}
```

# continue

```
#include <stdio.h>
int main () {
    int a = 10;
    do {
        if( a == 15) {
            a = a + 1;
            continue;
        }
        printf("a değeri: %d\n", a);
        a++;
    } while( a < 20 );
    return 0;
}
```

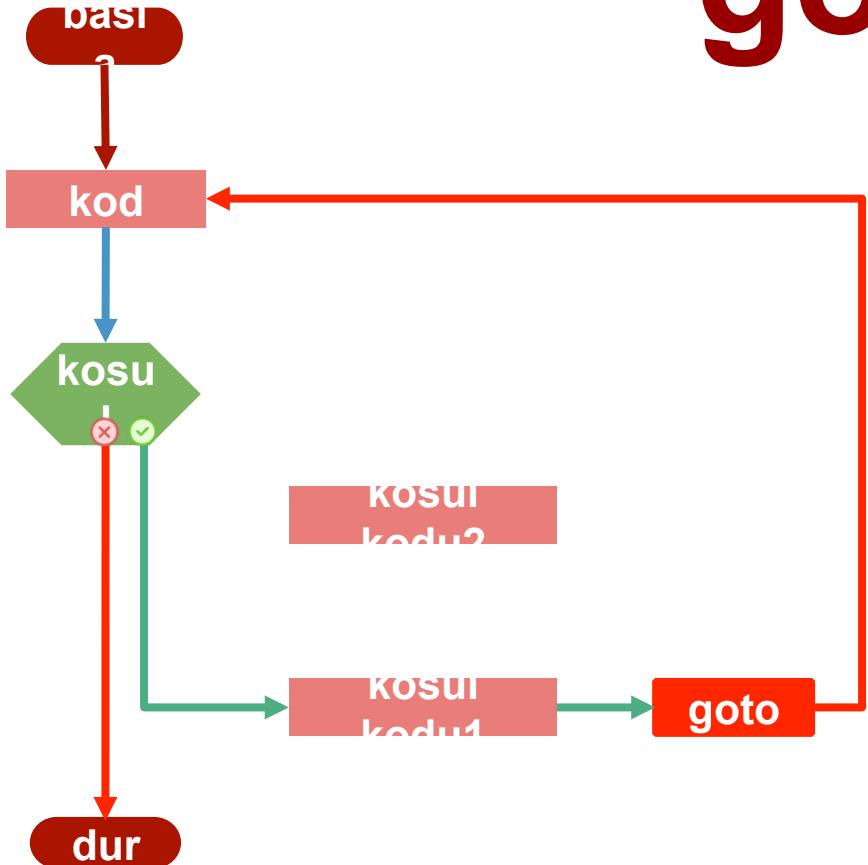


# goto



```
while( kosul){  
    kosul_kodu1;  
  
    kosul_kodu2;  
}
```

# goto



```
LOOP: kod;  
while( kosul){  
    kosul_kodu1;  
    goto LOOP;  
    kosul_kodu2;  
}
```

# goto

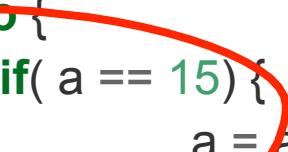
```
#include <stdio.h>
int main () {
    int a = 10;
    printf("a değeri: %d\n", a);
    a++;
}while( a < 20 );
return 0;
}
```

# goto

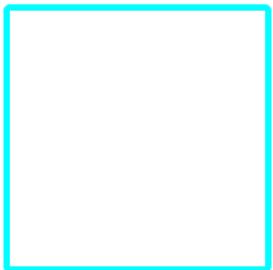
```
#include <stdio.h>
int main () {
    int a = 10;
    do {
        if( a == 15) {
            a = a + 1;
        }
        printf("a değeri: %d\n", a);
        a++;
    }while( a < 20 );
    return 0;
}
```

# goto

```
#include <stdio.h>
int main () {
    int a = 10;
    LOOP:do {
        if( a == 15) {
            a = a + 1;
            goto LOOP;
        }
        printf("a değeri: %d\n", a);
        a++;
    }while( a < 20 );
    return 0;
}
```



# iç içe döngü



# İç içe döngü

```
for( baslangic1; kosul1; artim1 ){
```

```
    kosul kodu2;
```

```
}
```



# İç içe döngü

```
for( baslangic1; kosul1; artim1 ){
    for( baslangic2; kosul2; artim2){
        kosul kodu1;
    }
    kosul kodu2;
}
```



# Matris

SUTUN=0 SUTUN=1

SATIR=0

SATIR=1

[ 1 ]

3

# Matris

```
1 #include <stdio.h>
2 int main(){
3     int satir,sutun;
4     for (satir=0;satir<2;satir++){
5         for(sutun=0;sutun<2;sutun++){
6             printf(" %d,%d ",satir,sutun);
7         }
8         printf("\n");
9     }
10    return 0;
11 }
```

# Matris

```
1 #include <stdio.h>
2 int main(){
3     int satir,sutun;
4     for (satir=0;satir<2;satir++){
5         for(sutun=0;sutun<2;sutun++){
6             printf(" %d,%d ",satir,sutun);
7         }
8         printf("\n");
9     }
10    return 0;
11 }
```

satir

sutun

# Matris

```
1 #include <stdio.h>
2 int main(){
3     int satir,sutun;
4     for (satir=0;satir<2;satir++){
5         for(sutun=0;sutun<2;sutun++){
6             printf(" %d,%d ",satir,sutun);
7         }
8         printf("\n");
9     }
10    return 0;
11 }
```

satir

0

sutun

# Matris

```
1 #include <stdio.h>
2 int main(){
3     int satir,sutun;
4     for (satir=0;satir<2;satir++){
5         for(sutun=0;sutun<2;sutun++){
6             printf(" %d,%d ",satir,sutun);
7         }
8         printf("\n");
9     }
10    return 0;
11 }
```

satir

0

sutun

0

# Matris

```
1 #include <stdio.h>
2 int main(){
3     int satir,sutun;
4     for (satir=0;satir<2;satir++){
5         for(sutun=0;sutun<2;sutun++){
6             printf(" %d,%d ",satir,sutun);
7         }
8         printf("\n");
9     }
10    return 0;
11 }
```

0,0

satir

0

sutun

0

# Matris

```
1 #include <stdio.h>
2 int main(){
3     int satir,sutun;
4     for (satir=0;satir<2;satir++){
5         for(sutun=0;sutun<2;sutun++){
6             printf(" %d,%d ",satir,sutun);
7         }
8         printf("\n");
9     }
10    return 0;
11 }
```

0,0

satir

0

sutun

0

# Matris

```
1 #include <stdio.h>
2 int main(){
3     int satir,sutun;
4     for (satir=0;satir<2;satir++){
5         for(sutun=0;sutun<2;sutun++){
6             printf(" %d,%d ",satir,sutun);
7         }
8         printf("\n");
9     }
10    return 0;
11 }
```

0,0

satir

0

sutun

1

# Matris

```
1 #include <stdio.h>
2 int main(){
3     int satir,sutun;
4     for (satir=0;satir<2;satir++){
5         for(sutun=0;sutun<2;sutun++){
6             printf(" %d,%d ",satir,sutun);
7         }
8         printf("\n");
9     }
10    return 0;
11 }
```

0,0 0,1

satir

0

sutun

1

# Matris

```
1 #include <stdio.h>
2 int main(){
3     int satir,sutun;
4     for (satir=0;satir<2;satir++){
5         for(sutun=0;sutun<2;sutun++){
6             printf(" %d,%d ",satir,sutun);
7         }
8         printf("\n");
9     }
10    return 0;
11 }
```

0,0 0,1

satir

0

sutun

1

# Matris

```
1 #include <stdio.h>
2 int main(){
3     int satir,sutun;
4     for (satir=0;satir<2;satir++){
5         for(sutun=0;sutun<2;sutun++){
6             printf(" %d,%d ",satir,sutun);
7         }
8         printf("\n");
9     }
10    return 0;
11 }
```

0,0 0,1

satir

0

sutun

2

# Matris

```
1 #include <stdio.h>
2 int main(){
3     int satir,sutun;
4     for (satir=0;satir<2;satir++){
5         for(sutun=0;sutun<2;sutun++){
6             printf(" %d,%d ",satir,sutun);
7         }
8         printf("\n");
9     }
10    return 0;
11 }
```

0,0 0,1

satir

0

sutun

2

# Matris

```
1 #include <stdio.h>
2 int main(){
3     int satir,sutun;
4     for (satir=0;satir<2;satir++){
5         for(sutun=0;sutun<2;sutun++){
6             printf(" %d,%d ",satir,sutun);
7         }
8         printf("\n");
9     }
10    return 0;
11 }
```

0,0 0,1

satir

0

sutun

2

# Matris

```
1 #include <stdio.h>
2 int main(){
3     int satir,sutun;
4     for (satir=0;satir<2;satir++){
5         for(sutun=0;sutun<2;sutun++){
6             printf(" %d,%d ",satir,sutun);
7         }
8         printf("\n");
9     }
10    return 0;
11 }
```

0,0 0,1

satir

1

sutun

2

# Matris

```
1 #include <stdio.h>
2 int main(){
3     int satir,sutun;
4     for (satir=0;satir<2;satir++){
5         for(sutun=0;sutun<2;sutun++){
6             printf(" %d,%d ",satir,sutun);
7         }
8         printf("\n");
9     }
10    return 0;
11 }
```

0,0 0,1

satir

1

sutun

0

# Matris

```
1 #include <stdio.h>
2 int main(){
3     int satir,sutun;
4     for (satir=0;satir<2;satir++){
5         for(sutun=0;sutun<2;sutun++){
6             printf(" %d,%d ",satir,sutun);
7         }
8         printf("\n");
9     }
10    return 0;
11 }
```

0,0 0,1  
1,0

satir

1

sutun

0

# Matris

```
1 #include <stdio.h>
2 int main(){
3     int satir,sutun;
4     for (satir=0;satir<2;satir++){
5         for(sutun=0;sutun<2;sutun++){
6             printf(" %d,%d ",satir,sutun);
7         }
8         printf("\n");
9     }
10    return 0;
11 }
```

0,0 0,1  
1,0

satir

1

sutun

0

# Matris

```
1 #include <stdio.h>
2 int main(){
3     int satir,sutun;
4     for (satir=0;satir<2;satir++){
5         for(sutun=0;sutun<2;sutun++){
6             printf(" %d,%d ",satir,sutun);
7         }
8         printf("\n");
9     }
10    return 0;
11 }
```

0,0 0,1  
1,0

satir

1

sutun

1

# Matris

```
1 #include <stdio.h>
2 int main(){
3     int satir,sutun;
4     for (satir=0;satir<2;satir++){
5         for(sutun=0;sutun<2;sutun++){
6             printf(" %d,%d ",satir,sutun);
7         }
8         printf("\n");
9     }
10    return 0;
11 }
```

0,0 0,1  
1,0 1,1

satir

1

sutun

1

# Matris

```
1 #include <stdio.h>
2 int main(){
3     int satir,sutun;
4     for (satir=0;satir<2;satir++){
5         for(sutun=0;sutun<2;sutun++){
6             printf(" %d,%d ",satir,sutun);
7         }
8         printf("\n");
9     }
10    return 0;
11 }
```

0,0 0,1  
1,0 1,1

satir

1

sutun

1

# Matris

```
1 #include <stdio.h>
2 int main(){
3     int satir,sutun;
4     for (satir=0;satir<2;satir++){
5         for(sutun=0;sutun<2;sutun++){
6             printf(" %d,%d ",satir,sutun);
7         }
8         printf("\n");
9     }
10    return 0;
11 }
```

0,0 0,1  
1,0 1,1

satir

1

sutun

2

# Matris

```
1 #include <stdio.h>
2 int main(){
3     int satir,sutun;
4     for (satir=0;satir<2;satir++){
5         for(sutun=0;sutun<2;sutun++){
6             printf(" %d,%d ",satir,sutun);
7         }
8         printf("\n");
9     }
10    return 0;
11 }
```

0,0 0,1  
1,0 1,1

satir

1

sutun

2

# Matris

```
1 #include <stdio.h>
2 int main(){
3     int satir,sutun;
4     for (satir=0;satir<2;satir++){
5         for(sutun=0;sutun<2;sutun++){
6             printf(" %d,%d ",satir,sutun);
7         }
8         printf("\n");
9     }
10    return 0;
11 }
```

0,0 0,1  
1,0 1,1

satir

1

sutun

2

# Matris

```
1 #include <stdio.h>
2 int main(){
3     int satir,sutun;
4     for (satir=0;satir<2;satir++){
5         for(sutun=0;sutun<2;sutun++){
6             printf(" %d,%d ",satir,sutun);
7         }
8         printf("\n");
9     }
10    return 0;
11 }
```

0,0 0,1  
1,0 1,1

satir

2

sutun

2

# Matris

```
1 #include <stdio.h>
2 int main(){
3     int satir,sutun;
4     for (satir=0;satir<2;satir++){
5         for(sutun=0;sutun<2;sutun++){
6             printf(" %d,%d ",satir,sutun);
7         }
8         printf("\n");
9     }
10    return 0;
11 }
```

0,0 0,1  
1,0 1,1

satir

2

sutun

2

# Matris

```
1 #include <stdio.h>
2 int main(){
3     int satir,sutun;
4     for (satir=0;satir<2;satir++){
5         for(sutun=0;sutun<2;sutun++){
6             printf(" %d,%d ",satir,sutun);
7         }
8         printf("\n");
9     }
10    return 0;
11 }
```

0,0 0,1  
1,0 1,1

satir

2

sutun

2

# Asal Sayı

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

“Prime Number”

Sadece 1 ve kendisine bölünen  
sayı

# Asal Sayı

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

23 asal mıdır?

2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37

38 39 40 ...

# Asal Sayı

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

23 asal mıdır?

2971215073 asal  
mıdır?

2 3 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37

38 39 40 ...

# Asal Sayı

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

23 asal mıdır?

$23 \leq 4 \times 4$

$2 \leq 23/2$

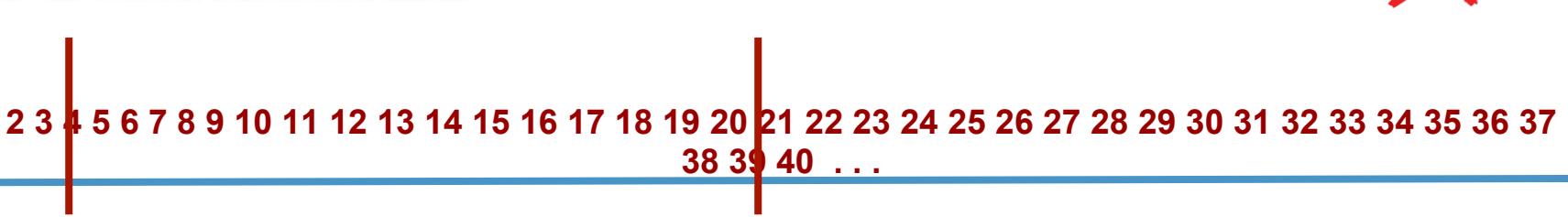
$3 \leq 23/3$

$4 \leq 23/4$

$5 \leq 23/5$

$23 \geq P \times P$

$23 \geq 4 \times 4$



# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int j, i = 20;
4     for(j = 2; j <= (i/j); j++)
5         if(!(i%j)) break;
6     if(j > (i/j)) printf("%d asaldır\n", i);
7     return 0;
8 }
```

i

20

j

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int j, i = 20;
4     for(j = 2; j <= (i/j); j++)
5         if(!(i%j)) break;
6     if(j > (i/j)) printf("%d asaldır\n", i);
7     return 0;
8 }
```

i

20

$2 \leq (20/2)$

j

2

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int j, i = 20;
4     for(j = 2; j <= (i/j); j++)
5         if(!(i%j)) break;
6     if(j > (i/j)) printf("%d asaldır\n", i);
7     return 0;
8 }
```

i

20

j

2

!(20%2) => True

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int j, i = 20;
4     for(j = 2; j <= (i/j); j++)
5         if(!(i%j)) break;
6     if(j > (i/j)) printf("%d asaldır\n", i);
7     return 0;
8 }
```

i

20

j

2

$2 > (20/2)$

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int j, i = 20;
4     for(j = 2; j <= (i/j); j++)
5         if(!(i%j)) break;
6     if(j > (i/j)) printf("%d asaldır\n", i);
7     return 0;
8 }
```

i

20

j

2

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int j, i = 23;
4     for(j = 2; j <= (i/j); j++)
5         if(!(i%j)) break;
6     if(j > (i/j)) printf("%d asaldır\n", i);
7     return 0;
8 }
```

i

23

j

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int j, i = 20;
4     for(j = 2; j <= (i/j); j++)
5         if(!(i%j)) break;
6     if(j > (i/j)) printf("%d asaldır\n", i);
7     return 0;
8 }
```

i

23

$2 \leq (23/2)$

j

2

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int j, i = 20;
4     for(j = 2; j <= (i/j); j++)
5         if(!(i%j)) break;
6     if(j > (i/j)) printf("%d asaldır\n", i);
7     return 0;
8 }
```

i

23

j

2

$!(23\%2) \Rightarrow$   
**False**

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int j, i = 20;
4     for(j = 2; j <= (i/j); j++)
5         if(!(i%j)) break;
6     if(j > (i/j)) printf("%d asaldır\n", i);
7     return 0;
8 }
```

i

23

$3 \leq (23/3)$

j

3

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int j, i = 20;
4     for(j = 2; j <= (i/j); j++)
5         if(!(i%j)) break;
6     if(j > (i/j)) printf("%d asaldır\n", i);
7     return 0;
8 }
```

i

23

j

3

$!(23 \% 3) \Rightarrow$   
**False**

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int j, i = 20;
4     for(j = 2; j <= (i/j); j++)
5         if(!(i%j)) break;
6     if(j > (i/j)) printf("%d asaldır\n", i);
7     return 0;
8 }
```

i

23 4<=(23/4)

j

4

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int j, i = 20;
4     for(j = 2; j <= (i/j); j++)
5         if(!(i%j)) break;
6     if(j > (i/j)) printf("%d asaldır\n", i);
7     return 0;
8 }
```

i

23

j

4

$!(23 \% 4) \Rightarrow$   
False

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int j, i = 20;
4     for(j = 2; j <= (i/j); j++)
5         if(!(i%j)) break;
6     if(j > (i/j)) printf("%d asaldır\n", i);
7     return 0;
8 }
```

i

23

$5 \leq (23/5)$

j

5

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int j, i = 20;
4     for(j = 2; j <= (i/j); j++)
5         if(!(i%j)) break;
6     if(j > (i/j)) printf("%d asaldır\n", i);
7     return 0;
8 }
```

23 asaldır

i

23

j

5

$5 > (20/5)$

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int j, i = 20;
4     for(j = 2; j <= (i/j); j++)
5         if(!(i%j)) break;
6     if(j > (i/j)) printf("%d asaldır\n", i);
7     return 0;
8 }
```

23 asaldır

i

23

j

5

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int i, j;
4     for(i = 2; i< 8; i++) {
5         for(j = 2; j <= (i/j); j++)
6             if(!(i%j)) break;
7         if(j > (i/j)) printf("%d asaldır\n", i);
8     }
9     return 0;
10 }
```

i

j

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int i, j;
4     for(i = 2; i< 8; i++) {
5         for(j = 2; j <= (i/j); j++)
6             if(!(i%j)) break;
7         if(j > (i/j)) printf("%d asaldır\n", i);
8     }
9     return 0;
10 }
```

i

2 2 < 8

j

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int i, j;
4     for(i = 2; i< 8; i++) {
5         for(j = 2; j <= (i/j); j++)
6             if(!(i%j)) break;
7         if(j > (i/j)) printf("%d asaldır\n", i);
8     }
9     return 0;
10 }
```

i

2  
 $2 \leq (2/2)$

j

2

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int i, j;
4     for(i = 2; i< 8; i++) {
5         for(j = 2; j <= (i/j); j++)
6             if(!(i%j)) break;
7         if(j > (i/j)) printf("%d asaldır\n", i);
8     }
9     return 0;
10 }
```

2 asaldır

i → 2

j → 2

$2 > (2/2)$

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int i, j;
4     for(i = 2; i< 8; i++) {
5         for(j = 2; j <= (i/j); j++)
6             if(!(i%j)) break;
7         if(j > (i/j)) printf("%d asaldır\n", i);
8     }
9     return 0;
10 }
```

2 asaldır

i

2

j

2

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int i, j;
4     for(i = 2; i< 8; i++) {
5         for(j = 2; j <= (i/j); j++)
6             if(!(i%j)) break;
7         if(j > (i/j)) printf("%d asaldır\n", i);
8     }
9     return 0;
10 }
```

2 asaldır

i

3     $3 < 8$

j

2

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int i, j;
4     for(i = 2; i < 8; i++) {
5         for(j = 2; j <= (i/j); j++)
6             if(!(i%j)) break;
7         if(j > (i/j)) printf("%d asaldır\n", i);
8     }
9     return 0;
10 }
```

2 asaldır

i

3  $2 \leq (3/2)$

j

2

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int i, j;
4     for(i = 2; i< 8; i++) {
5         for(j = 2; j <= (i/j); j++)
6             if(!(i%j)) break;
7         if(j > (i/j)) printf("%d asaldır\n", i);
8     }
9     return 0;
10 }
```

2 asaldır

3 asaldır

i

3

j

2

$2 > (3/2)$

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int i, j;
4     for(i = 2; i< 8; i++) {
5         for(j = 2; j <= (i/j); j++)
6             if(!(i%j)) break;
7         if(j > (i/j)) printf("%d asaldır\n", i);
8     }
9     return 0;
10 }
```

2 asaldır  
3 asaldır

i → 3

j → 2

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int i, j;
4     for(i = 2; i< 8; i++) {
5         for(j = 2; j <= (i/j); j++)
6             if(!(i%j)) break;
7         if(j > (i/j)) printf("%d asaldır\n", i);
8     }
9     return 0;
10 }
```

2 asaldır

3 asaldır

i

4     $4 < 8$

j

2

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int i, j;
4     for(i = 2; i< 8; i++) {
5         for(j = 2; j <= (i/j); j++)
6             if(!(i%j)) break;
7         if(j > (i/j)) printf("%d asaldır\n", i);
8     }
9     return 0;
10 }
```

2 asaldır  
3 asaldır



# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int i, j;
4     for(i = 2; i< 8; i++) {
5         for(j = 2; j <= (i/j); j++)
6             if(!(i%j)) break;
7         if(j > (i/j)) printf("%d asaldır\n", i);
8     }
9     return 0;
10 }
```

2 asaldır  
3 asaldır



4



j

2

!(4/2) =>  
True

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int i, j;
4     for(i = 2; i< 8; i++) {
5         for(j = 2; j <= (i/j); j++)
6             if(!(i%j)) break;
7         if(j > (i/j)) printf("%d asaldır\n", i);
8     }
9     return 0;
10 }
```

2 asaldır

3 asaldır

i

4

j

2

$2 > (4/2)$

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int i, j;
4     for(i = 2; i< 8; i++) {
5         for(j = 2; j <= (i/j); j++)
6             if(!(i%j)) break;
7         if(j > (i/j)) printf("%d asaldır\n", i);
8     }
9     return 0;
10 }
```

2 asaldır

3 asaldır

i

4

j

2

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int i, j;
4     for(i = 2; i< 8; i++) {
5         for(j = 2; j <= (i/j); j++)
6             if(!(i%j)) break;
7         if(j > (i/j)) printf("%d asaldır\n", i);
8     }
9     return 0;
10 }
```

2 asaldır

3 asaldır

i

5     $5 < 8$

j

2

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int i, j;
4     for(i = 2; i< 8; i++) {
5         for(j = 2; j <= (i/j); j++)
6             if(!(i%j)) break;
7         if(j > (i/j)) printf("%d asaldır\n", i);
8     }
9     return 0;
10 }
```

2 asaldır

3 asaldır

i

5  $2 \leq (5/2)$

j

2

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int i, j;
4     for(i = 2; i < 8; i++) {
5         for(j = 2; j <= (i/j); j++)
6             if(!(i%j)) break;
7         if(j > (i/j)) printf("%d asaldır\n", i);
8     }
9     return 0;
10 }
```

2 asaldır  
3 asaldır

i → 5      j → 2      !(5/2) => False

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int i, j;
4     for(i = 2; i< 8; i++) {
5         for(j = 2; j <= (i/j); j++)
6             if(!(i%j)) break;
7         if(j > (i/j)) printf("%d asaldır\n", i);
8     }
9     return 0;
10 }
```

2 asaldır  
3 asaldır



# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int i, j;
4     for(i = 2; i< 8; i++) {
5         for(j = 2; j <= (i/j); j++)
6             if(!(i%j)) break;
7         if(j > (i/j)) printf("%d asaldır\n", i);
8     }
9     return 0;
10 }
```

2 asaldır

3 asaldır

5 asaldır

i

5

j

3

$3 > (5/3)$

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int i, j;
4     for(i = 2; i< 8; i++) {
5         for(j = 2; j <= (i/j); j++)
6             if(!(i%j)) break;
7         if(j > (i/j)) printf("%d asaldır\n", i);
8     }
9     return 0;
10 }
```

2 asaldır

3 asaldır

5 asaldır

i

5

j

3

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int i, j;
4     for(i = 2; i< 8; i++) {
5         for(j = 2; j <= (i/j); j++)
6             if(!(i%j)) break;
7         if(j > (i/j)) printf("%d asaldır\n", i);
8     }
9     return 0;
10 }
```

2 asaldır

3 asaldır

5 asaldır

i

6     $6 < 8$

j

3

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int i, j;
4     for(i = 2; i< 8; i++) {
5         for(j = 2; j <= (i/j); j++)
6             if(!(i%j)) break;
7         if(j > (i/j)) printf("%d asaldır\n", i);
8     }
9     return 0;
10 }
```

2 asaldır

3 asaldır

5 asaldır

i

6  $2 \leq$   
 $(6/2)$

j

2

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int i, j;
4     for(i = 2; i < 8; i++) {
5         for(j = 2; j <= (i/j); j++)
6             if(!(i%j)) break;
7         if(j > (i/j)) printf("%d asaldır\n", i);
8     }
9     return 0;
10 }
```

2 asaldır

3 asaldır

5 asaldır

i

6

j

2

!(6/2) => True

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int i, j;
4     for(i = 2; i< 8; i++) {
5         for(j = 2; j <= (i/j); j++)
6             if(!(i%j)) break;
7         if(j > (i/j)) printf("%d asaldır\n", i);
8     }
9     return 0;
10 }
```

2 asaldır

3 asaldır

5 asaldır

i

6

j

2

$2 > (6/2)$

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int i, j;
4     for(i = 2; i< 8; i++) {
5         for(j = 2; j <= (i/j); j++)
6             if(!(i%j)) break;
7         if(j > (i/j)) printf("%d asaldır\n", i);
8     }
9     return 0;
10 }
```

2 asaldır

3 asaldır

5 asaldır

i

6

j

2

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int i, j;
4     for(i = 2; i< 8; i++) {
5         for(j = 2; j <= (i/j); j++)
6             if(!(i%j)) break;
7         if(j > (i/j)) printf("%d asaldır\n", i);
8     }
9     return 0;
10 }
```

2 asaldır

3 asaldır

5 asaldır

i

7

7 < 8

j

2

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int i, j;
4     for(i = 2; i< 8; i++) {
5         for(j = 2; j <= (i/j); j++)
6             if(!(i%j)) break;
7         if(j > (i/j)) printf("%d asaldır\n", i);
8     }
9     return 0;
10 }
```

2 asaldır

3 asaldır

5 asaldır

i

7

$2 \leq (7/2)$

j

2

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int i, j;
4     for(i = 2; i< 8; i++) {
5         for(j = 2; j <= (i/j); j++)
6             if(!(i%j)) break;
7         if(j > (i/j)) printf("%d asaldır\n", i);
8     }
9     return 0;
10 }
```

2 asaldır

3 asaldır

5 asaldır

i

7

j

2

$!(7/2) \Rightarrow \text{False}$

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int i, j;
4     for(i = 2; i< 8; i++) {
5         for(j = 2; j <= (i/j); j++)
6             if(!(i%j)) break;
7         if(j > (i/j)) printf("%d asaldır\n", i);
8     }
9     return 0;
10 }
```

2 asaldır

3 asaldır

5 asaldır

i

7  
 $3 \leq (7/3)$

j

3

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int i, j;
4     for(i = 2; i< 8; i++) {
5         for(j = 2; j <= (i/j); j++)
6             if(!(i%j)) break;
7         if(j > (i/j)) printf("%d asaldır\n", i);
8     }
9     return 0;
10 }
```

2 asaldır

3 asaldır

5 asaldır

7 asaldır

i

7

j

3

$3 > (7/3)$

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int i, j;
4     for(i = 2; i< 8; i++) {
5         for(j = 2; j <= (i/j); j++)
6             if(!(i%j)) break;
7         if(j > (i/j)) printf("%d asaldır\n", i);
8     }
9     return 0;
10 }
```

2 asaldır  
3 asaldır  
5 asaldır  
7 asaldır

i

8     $8 < 8$

j

3

# Asal Sayı

```
1 #include <stdio.h>
2 int main () {
3     int i, j;
4     for(i = 2; i< 8; i++) {
5         for(j = 2; j <= (i/j); j++)
6             if(!(i%j)) break;
7         if(j > (i/j)) printf("%d asaldır\n", i);
8     }
9     return 0;
10 }
```

2 asaldır

3 asaldır

5 asaldır

7 asaldır

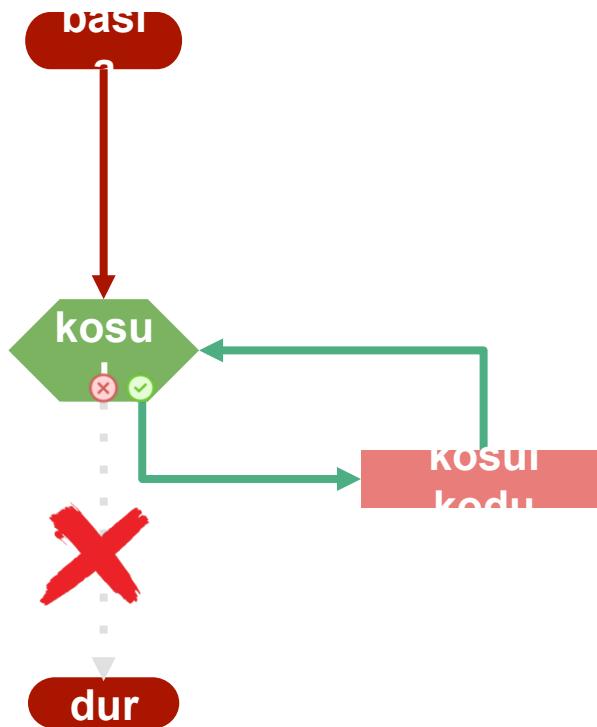
i

8

j

3

# Sonsuz Döngü

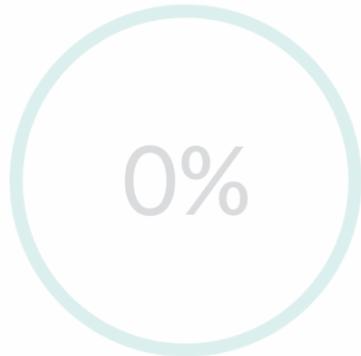


Kosul true



# Sonsuz Döngü

```
#include <stdio.h>
int main () {
    return 0;
}
```



# Sonsuz Döngü

```
#include <stdio.h>
int main () {
    for( ; ; ) {
        }
    return 0;
}
```



# Sonsuz Döngü

```
#include <stdio.h>
int main () {
    for( ; ; ) {
        printf("Bu dongu sonsuz kez doner\n");
    }
    return 0;
}
```



# Kare Hesaplama

$$3^2 = 9$$

# Kare Hesaplama

**sayı girin: 2**

**sayının karesi: 4**

**sayı girin: 3**

**sayının karesi: 9**

**sayı girin: 4**

**sayının karesi: 16**



# Kare Hesaplama

```
#include <stdio.h>
int main() {
    int sayi;
    printf("sayi girin: ");
    scanf("%d", &sayi);
    int sonuc = sayi * sayi;
    printf("sayinin karesi: %d\n\n", sonuc);

    return 0;
}
```

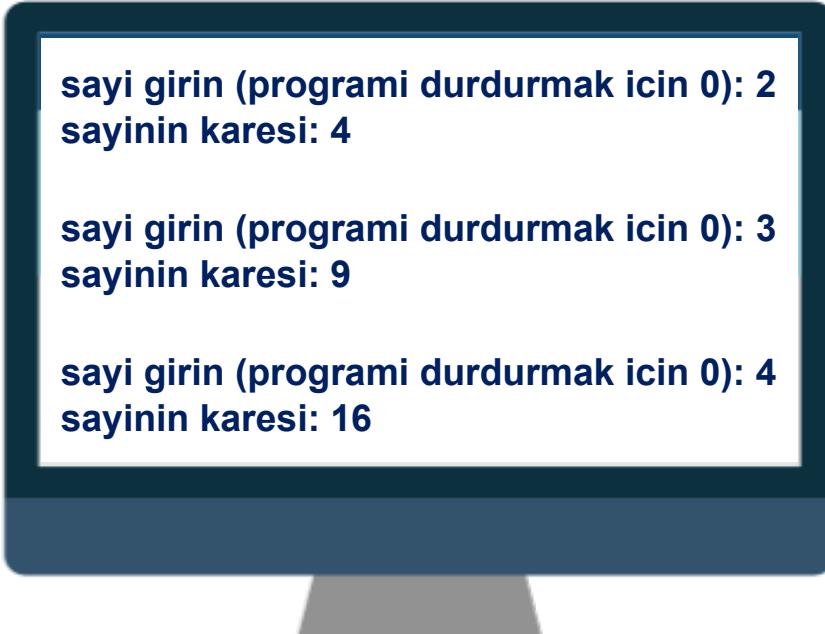
# Kare Hesaplama

```
#include <stdio.h>
int main() {
    while ( ) {
        int sayi;
        printf("sayi girin: ");
        scanf("%d", &sayi);
        int sonuc = sayi * sayi;
        printf("sayinin karesi: %d\n\n", sonuc);
    }
    return 0;
}
```

# Kare Hesaplama

```
#include <stdio.h>
int main() {
    while (1) {
        int sayi;
        printf("sayi girin: ");
        scanf("%d", &sayi);
        int sonuc = sayi * sayi;
        printf("sayinin karesi: %d\n\n", sonuc);
    }
    return 0;
}
```

# Kare Hesaplama



**sayı girin (programı durdurmak için 0): 2**  
**sayının karesi: 4**

**sayı girin (programı durdurmak için 0): 3**  
**sayının karesi: 9**

**sayı girin (programı durdurmak için 0): 4**  
**sayının karesi: 16**

# Kare Hesaplama

```
#include <stdio.h>
int main() {
    while (      ) {
        printf("sayi girin               \n");
        scanf("%d", &sayi);
        int sonuc = sayi * sayi;
        printf("sayinin karesi: %d\n\n", sonuc);
    }
    return 0;
}
```

# Kare Hesaplama

```
#include <stdio.h>
int main() {
    while (      ) {
        printf("sayi girin (programi durdurmak icin 0)\n");
        scanf("%d", &sayi);
        int sonuc = sayi * sayi;
        printf("sayinin karesi: %d\n\n", sonuc);
    }
    return 0;
}
```

# Kare Hesaplama

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

    while (sayi != 0) {
        printf("sayi girin (programi durdurmak icin 0)\n");
        scanf("%d", &sayi);
        int sonuc = sayi * sayi;
        printf("sayinin karesi: %d\n\n", sonuc);
    }

    return 0;
}
```

# Kare Hesaplama

```
#include <stdio.h>
int main() {
    int sayi = 1234; // 0 haricinde bir sayi
    while (sayi != 0) {
        printf("sayi girin (programi durdurmak icin 0)\n");
        scanf("%d", &sayi);
        int sonuc = sayi * sayi;
        printf("sayinin karesi: %d\n\n", sonuc);
    }
    return 0;
}
```

# Faktöriyel

1 2 3 4 5

$n!$

# Faktöriyel

1 2 3 4 5  
2

$n!$

# Faktöriyel

1 2 3 4 5  
2

$n!$

# Faktöriyel

$$1 \, 2 \, 3 \, 4 \, 5 \\ \textcolor{blue}{2} \\ \textcolor{blue}{6} \\ n!$$

# Faktöriyel

$$1 \cdot 2 \cdot 3 \cdot 4 \cdot 5$$
$$2$$
$$6$$
$$24$$
$$120$$
$$n!$$

# Faktöriyel

```
#include <stdio.h>
int main() {
    int sayac,carpim;
    int sayi;
    printf("sayi giriniz: ");
    scanf("%d", &sayi);
    sayac=1;
    carpim=1;

    carpim=carpim*sayac;
    sayac=sayac+1;

    printf("%d",carpim);
    return 0;
}
```

# Faktöriyel

```
#include <stdio.h>
int main() {
    int sayac,carpim;
    int sayi;
    printf("sayi giriniz: ");
    scanf("%d", &sayi);
    sayac=1;
    carpim=1;
    while(          ) {
        carpim=carpim*sayac;
        sayac=sayac+1;
    }
    printf("%d",carpim);
    return 0;
}
```

# Faktöriyel

```
#include <stdio.h>
int main() {
    int sayac,carpim;
    int sayi;
    printf("sayi giriniz: ");
    scanf("%d", &sayi);
    sayac=1;
    carpim=1;
    while(sayac<=sayi) {
        carpim=carpim*sayac;
        sayac=sayac+1;
    }
    printf("%d",carpim);
    return 0;
}
```

# Sayı & Toplama

```
#include <stdio.h>
#include <math.h>
int main() {
    int sayi;
    int pozitif = 0;
    int pozitif_toplam = 0;
    printf("sayi girin: ");
    scanf("%d", &sayi);

    if (sayi > 0) {
        pozitif++;
        pozitif_toplam += sayi;
    }

    printf("Toplam: %d\n", pozitif_toplam);
    printf("Pozitif sayı sayısı: %d\n", pozitif);

    return 0;
}
```

# Sayı & Toplama

```
#include <stdio.h>
#include <math.h>
int main() {
    int sayi;
    int pozitif = 0;
    int pozitif_toplam = 0;
    printf("sayi girin: ");
    scanf("%d", &sayi);
    while (sayi != 0) {
        }
        return 0;
}
```

# Sayı & Toplama

```
#include <stdio.h>
#include <math.h>
int main() {
    int sayi;
    int pozitif = 0;
    int pozitif_toplam = 0;
    printf("sayi girin: ");
    scanf("%d", &sayi);
    while (sayi != 0) {
        if (sayi > 0) {
            }
        }
    return 0;
}
```

# Sayı & Toplama

```
#include <stdio.h>
#include <math.h>
int main() {
    int sayi;
    int pozitif = 0;
    int pozitif_toplam = 0;
    printf("sayi girin: ");
    scanf("%d", &sayi);
    while (sayi != 0) {
        if (sayi > 0) {
            pozitif++;
            pozitif_toplam += sayi;
        }
    }
    return 0;
}
```

# Sayı & Toplama

```
#include <stdio.h>
#include <math.h>
int main() {
    int sayi;
    int pozitif = 0;
    int pozitif_toplam = 0;
    printf("sayı girin: ");
    scanf("%d", &sayi);
    while (sayi != 0) {
        if (sayi > 0) {
            pozitif++;
            pozitif_toplam += sayi;
        }
        printf("sayı girin: ");
        scanf("%d", &sayi);
    }
    return 0;
}
```

# Sayı & Toplama

```
#include <stdio.h>
#include <math.h>
int main() {
    int sayi;
    int pozitif = 0;
    int pozitif_toplam = 0;
    printf("sayi girin: ");
    scanf("%d", &sayi);
    while (sayi != 0) {
        if (sayi > 0) {
            pozitif++;
            pozitif_toplam += sayi;
        }
        printf("sayi girin: ");
        scanf("%d", &sayi);
    }
    printf("pozitif sayilarin sayisi: %d\n", pozitif);
    printf("pozitif sayilarin toplami: %d\n", pozitif_toplam);
    return 0;
}
```

# Toplama & Çıkarma

```
#include <stdio.h>
int main() {
    int secim;
    printf("toplama icin 1\n");
    printf("cikarma icin 2\n");
    printf("programi kapatmak icin 0\n");
    scanf("%d", &secim);

    return 0;
}
```

# Toplama & Çıkarma

```
#include <stdio.h>
int main() {
    int secim;
    printf("toplama icin 1\n");
    printf("cikarma icin 2\n");
    printf("programi kapatmak icin 0\n");
    scanf("%d", &secim);
    while ( secim != 0 ){
        int x, y;
        printf("iki sayi girin: ");
        scanf("%d %d", &x, &y);

    }
    return 0;
}
```

# Toplama & Çıkarma

```
#include <stdio.h>
int main() {
    int secim;
    printf("toplama icin 1\n");
    printf("cikarma icin 2\n");
    printf("programi kapatmak icin 0\n");
    scanf("%d", &secim);
    while ( secim != 0 ){
        int x, y;
        printf("iki sayi girin: ");
        scanf("%d %d", &x, &y);
        if (secim == 1) {
            printf("toplaml: %d\n", x+y);
        } else if (secim == 2) {
            printf("fark: %d\n", x-y);
        }
    }
    return 0;
}
```

# Toplama & Çıkarma

```
#include <stdio.h>
int main() {
    int secim;
    printf("toplama icin 1\n");
    printf("cikarma icin 2\n");
    printf("programi kapatmak icin 0\n");
    scanf("%d", &secim);
    while ( secim != 0 ){
        int x, y;
        printf("iki sayı girin: ");
        scanf("%d %d", &x, &y);
        if (secim == 1) {
            printf("toplama: %d\n", x+y);
        } else if (secim == 2) {
            printf("fark: %d\n", x-y);
        }
        printf("\n");
        printf("toplama icin 1\n");
        printf("cikarma icin 2\n");
        printf("programi kapatmak icin 0\n");
        scanf("%d", &secim);
    }
    return 0;
}
```

# Karekök & Üs

```
#include <stdio.h>
#include <math.h>
int main() {
    float sayi;
    float sonuc;
    printf("Sayı Giriniz : ");
    scanf("%f",&sayi);

    sonuc = sqrt(sayi);
    printf("Sonuç : %f",sonuc);

    sonuc = pow(sayi,2);
    printf("Sonuç : %f",sonuc);

    return 0;
}
```

# Karekök & Üs

```
#include <stdio.h>
#include <math.h>
int main() {
    float sayi;
    float sonuc;
    printf("Sayı Giriniz : ");
    scanf("%f",&sayi);
    sonuc= sqrt(sayi);
    printf("sqrt(%f) : %f\n",sayi,sonuc);

    return 0;
}
```

# Karekök & Üs

```
#include <stdio.h>
#include <math.h>
int main() {
    float sayi;
    float sonuc;
    printf("Sayı Giriniz : ");
    scanf("%f",&sayi);
    sonuc= sqrt(sayi);
    printf("sqrt(%f) : %f\n",sayi,sonuc);
    sonuc=pow(sayi,2);
    printf("pow(%f,2) : %f\n",sayi,sonuc);

    return 0;
}
```

# Karekök & Üs

```
#include <stdio.h>
#include <math.h>
int main() {
    float sayi;
    float sonuc;
    printf("Sayı Giriniz : ");
    scanf("%f",&sayi);
    sonuc= sqrt(sayi);
    printf("sqrt(%f) : %f\n",sayi,sonuc);
    sonuc=pow(sayi,2);
    printf("pow(%f,2) : %f\n",sayi,sonuc);
    sonuc=pow(2,sayi);
    printf("pow(2,%f) : %f\n",sayi,sonuc);
    return 0;
}
```

# Karekök

```
#include <stdio.h>
#include <math.h>
int main() {
    int sayi;
    printf("pozitif sayı giriniz: ");
    scanf("%d", &sayi);

    return 0;
}
```

# Karekök

```
#include <stdio.h>
#include <math.h>
int main() {
    int sayi;
    printf("pozitif sayı giriniz: ");
    scanf("%d", &sayi);
    while(sayı < 0) {
    }
    return 0;
}
```

# Karekök

```
#include <stdio.h>
#include <math.h>
int main() {
    int sayi;
    printf("pozitif sayı giriniz: ");
    scanf("%d", &sayi);
    while(sayı < 0) {
        printf("yanlis giriş yaptiniz\n");
        printf("pozitif sayı giriniz: ");
        scanf("%d", &sayi);
    }
    return 0;
}
```

# Karekök

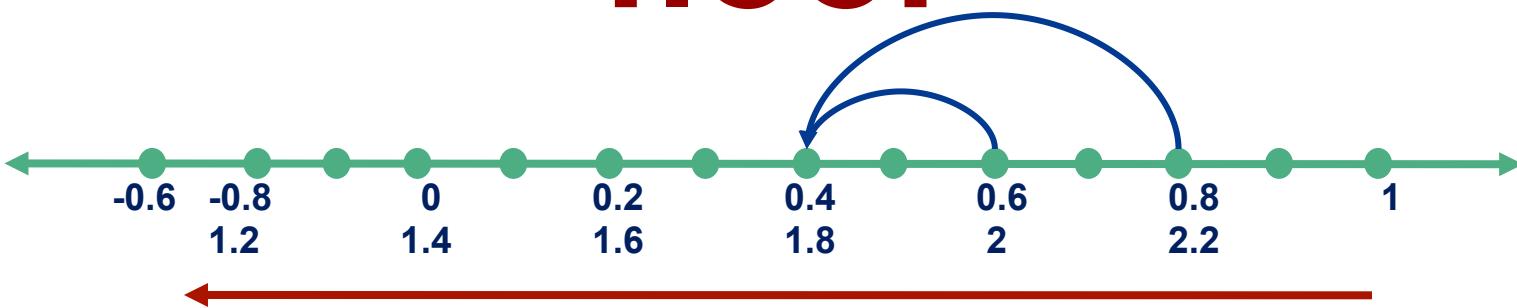
```
#include <stdio.h>
#include <math.h>
int main() {
    int sayi;
    printf("pozitif sayı giriniz: ");
    scanf("%d", &sayi);
    while(sayı < 0) {
        printf("yanlis giriş yaptiniz\n");
        printf("pozitif sayı giriniz: ");
        scanf("%d", &sayi);
    }
    float karekok = sqrt(sayı);
    printf("sayinin karekoku: %f\n", karekok);
    return 0;
}
```

# ceil



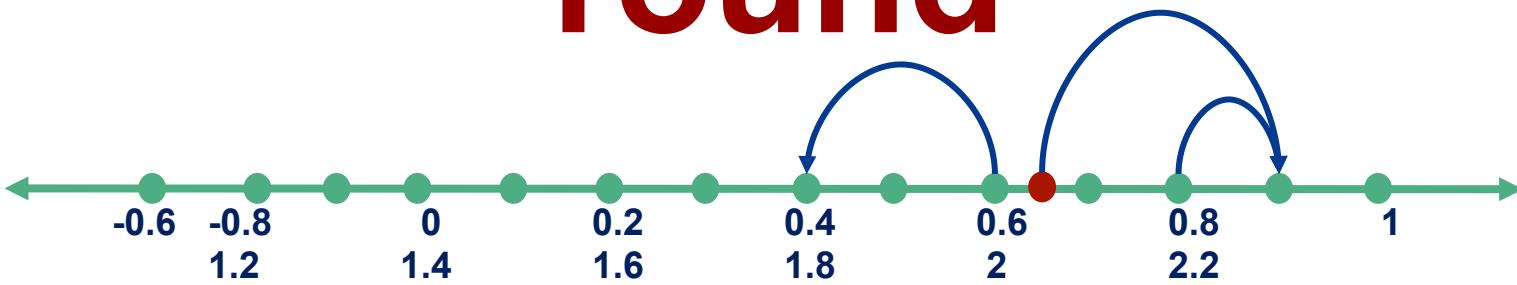
```
printf("ceil(%f) : %f\n",1.4,ceil(1.4));  
printf("ceil(%f) : %f\n",1.8,ceil(1.8));
```

# floor



```
printf("floor(%f) : %f\n", 1.4, floor(1.4));  
printf("floor(%f) : %f\n", 1.8, floor(1.8));
```

# round



```
printf("round(%f) : %f\n",1.4,round(1.4));  
printf("round(%f) : %f\n",1.5,round(1.5));  
printf("round(%f) : %f\n",1.8,round(1.8));
```

# abs

```
printf("fabs(%f) : %f\n",-1.3,fabs(-1.3));  
printf("abs(%d) : %d\n",-1,abs(-1));
```

# for

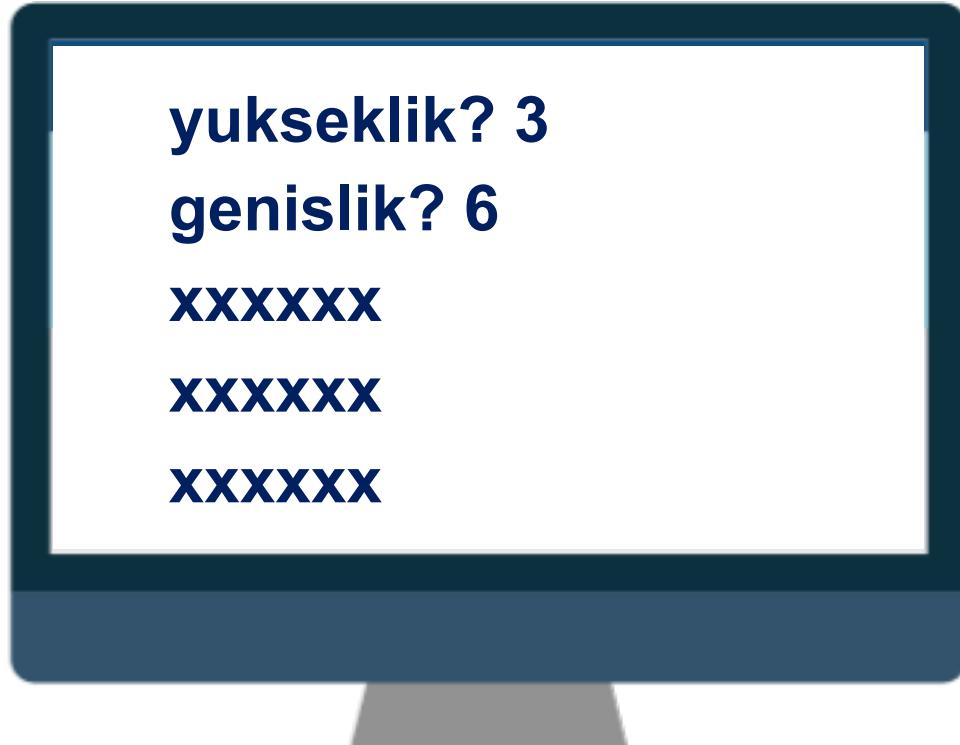
yukseklik? 3

genislik? 6

xxxxxx

xxxxxx

xxxxxx



# for

```
#include <stdio.h>
int main() {
    int yukseklik, genislik;
    int i; // i=genislik
    int y; // y=yukseklik
    printf("yukseklik?");
    scanf("%d", &yukseklik);
    printf("genislik?");
    scanf("%d", &genislik);

    return 0;
}
```

yukseklik?

3

genislik? 6

XXXXXX

XXXXXX

XXXXXX

# for

```
#include <stdio.h>
int main() {
    int yukseklik, genislik;
    int i; // i=genislik
    int y; // y=yukseklik
    printf("yukseklik?");
    scanf("%d", &yukseklik);
    printf("genislik?");
    scanf("%d", &genislik);
    for (y=1;y<=yukseklik;y++) {
        printf("\n");
    }
    return 0;
}
```

yukseklik?

3

genislik? 6

XXXXXX

XXXXXX

XXXXXX

# for

```
#include <stdio.h>
int main() {
    int yukseklik, genislik;
    int i; // i=genislik
    int y; // y=yukseklik
    printf("yukseklik?");
    scanf("%d", &yukseklik);
    printf("genislik?");
    scanf("%d", &genislik);
    for (y=1;y<=yukseklik;y++) {
        for (i=1;i<=genislik;i++) {
            printf("x");
        }
        printf("\n");
    }
    return 0;
}
```

yukseklik?

3

genislik? 6

xxxxxx

xxxxxx

xxxxxx

# for

**satir sayisi? 6**

**sutun sayisi? 6**

1 2 3 4 5 6

2 4 6 8 10 12

3 6 9 12 15 18

4 8 12 16 20 24

5 10 15 20 25 30

6 12 18 24 30 36

# for

satir sayisi? 6

sutun sayisi? 6

1	1	2	3	4	5	6
2	2	4	6	8	10	12
3	3	6	9	12	15	18
4	4	8	12	16	20	24
5	5	10	15	20	25	30
6	6	12	18	24	30	36
	1	2	3	4	5	6

s u t u n   x

satir

# for

```
#include <stdio.h>
int main() {
    int i,j; // i=satir, j=sutun
    int satirSayisi, sutunSayisi;
    printf("satir sayisi?");
    scanf("%d", &satirSayisi);
    printf("sutun sayisi?");
    scanf("%d", &sutunSayisi);

    return 0;
}
```

**satir sayisi? 6**

**sutun sayisi? 6**

1 2 3 4 5 6

2 4 6 8 10 12

3 6 9 12 15 18

4 8 12 16 20 24

5 10 15 20 25 30

6 12 18 24 30 36

# for

```
#include <stdio.h>
int main() {
    int i,j; // i=satir, j=sutun
    int satirSayisi, sutunSayisi;
    printf("satir sayisi?");
    scanf("%d", &satirSayisi);
    printf("sutun sayisi?");
    scanf("%d", &sutunSayisi);
    for(i=1;i<=satirSayisi;i++){
        printf("\n");
    }
    return 0;
}
```

**satir sayisi? 6**

**sutun sayisi? 6**

1 2 3 4 5 6

2 4 6 8 10 12

3 6 9 12 15 18

4 8 12 16 20 24

5 10 15 20 25 30

6 12 18 24 30 36

# for

```
#include <stdio.h>
int main() {
    int i,j; // i=satir, j=sutun
    int satirSayisi, sutunSayisi;
    printf("satir sayisi?");
    scanf("%d", &satirSayisi);
    printf("sutun sayisi?");
    scanf("%d", &sutunSayisi);
    for(i=1;i<=satirSayisi;i++){
        for(j=1;j<=sutunSayisi;j++){
            printf("%d ", i*j);
        }
        printf("\n");
    }
    return 0;
}
```

**satir sayisi? 6**

**sutun sayisi? 6**

1 2 3 4 5 6

2 4 6 8 10 12

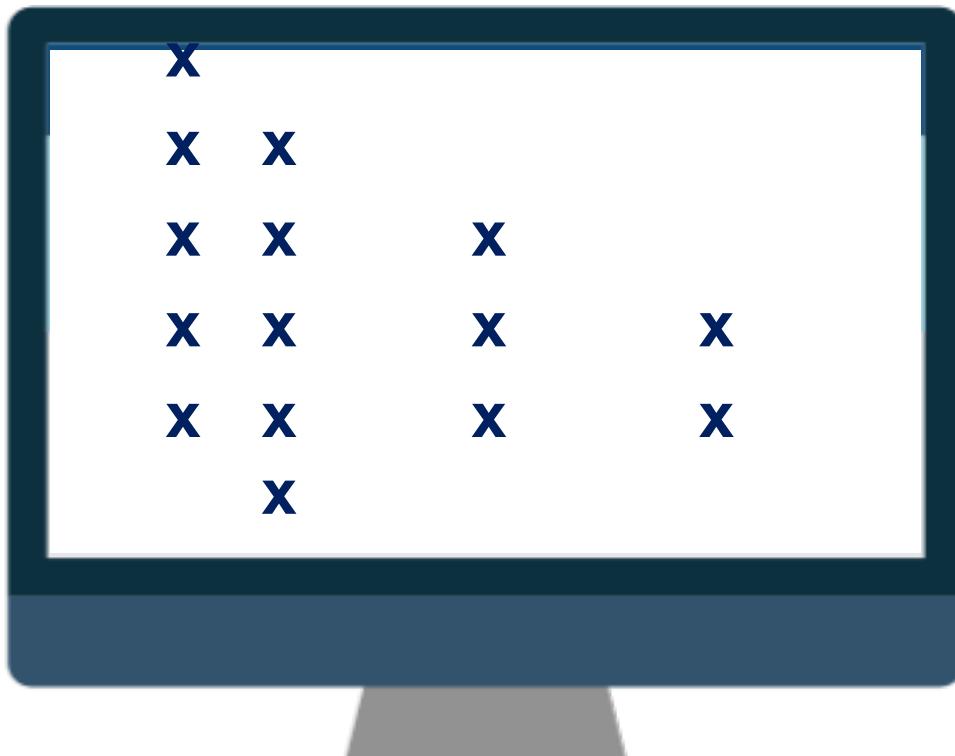
3 6 9 12 15 18

4 8 12 16 20 24

5 10 15 20 25 30

6 12 18 24 30 36

# for



# for

**satir =5**

**sutun = 5**

i					
1	x				i=1;
2	x	x			j=1;
3	x	x	x		x=1 j=1,
4	x	x	x		x=2 j=1, j=2, j=3
5	x	x	x		x=3 j=1, j=2, j=3,
j	1	2	3	4	x=4 j=1, j=2, j=3, j=4, j=5
	x	x	x	x	x=5
	4	2	3	5	
		x			
			x		

# for

```
#include <stdio.h>
int main() {
    int i, j;
    return 0;
}
```

**satir =5**  
**sutun = 5**

x		i=1;	j=1;	x=1
x	x	i=2;	j=1, j=2;	x=2
x	x	x i=3;	j=1, j=2, j=3	x=3
x	x	x i=4;	j=1, j=2, j=3, j=4	x=4
x	x	x i=5;	j=1, j=2, j=3, j=4,	x=5
	x	x j=5		
		x	x	

# for

```
#include <stdio.h>
int main() {
    int i, j;
    for (i = 1 ; i <= 5 ; i++) {
        printf("\n");
    }
    return 0;
}
```

**satir =5**  
**sutun = 5**

x		i=1;	j=1;	x=1
x	x	i=2;	j=1, j=2;	
x	x	x i=3;	j=1, j=2, j=3	x=2
x	x	x i=4;	j=1, j=2, j=3, j=4	x=3
x	x	x i=5;	j=1, j=2, j=3, j=4, j=5	x=4
x	x	x i=5	x=5	
	x	x		

# for

```
#include <stdio.h>
int main() {
    int i, j;
    for (i = 1 ; i <= 5 ; i++) {
        for (j = 1 ; j <= i ; j++) {
            }
        printf("\n");
    }
    return 0;
}
```

**satir =5**  
**sutun = 5**

x		i=1;	j=1;	x=1
x	x	i=2;	j=1, j=2;	
x	x	x i=3;	j=1, j=2, j=3	x=2
x	x	x i=4;	j=1, j=2, j=3, j=4	x=3
x	x	x i=5;	j=1, j=2, j=3, j=4, j=5	x=4
x	x	x i=5	x=5	x=5
	x	x		

# for

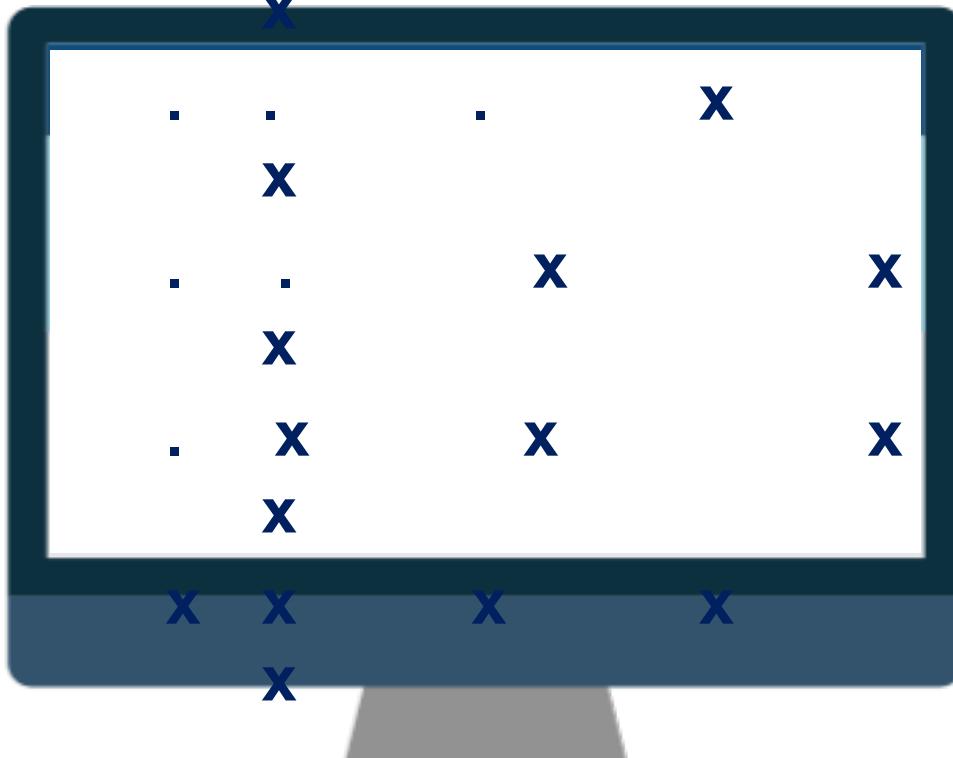
```
#include <stdio.h>
int main() {
    int i, j;
    for (i = 1 ; i <= 5 ; i++) {
        for (j = 1 ; j <= i ; j++) {
            printf("x");
        }
        printf("\n");
    }
    return 0;
}
```

**satir =5**

**sutun = 5**

x	i=1;	j=1;	x=1
x	i=2;	j=1, j=2;	x=2
x	x	j=1, j=2, j=3	x=3
x	x	x=1, j=2, j=3, j=4	x=4
x	x	x=4, j=2, j=3, j=4, x=5	x=5
x	x	x	

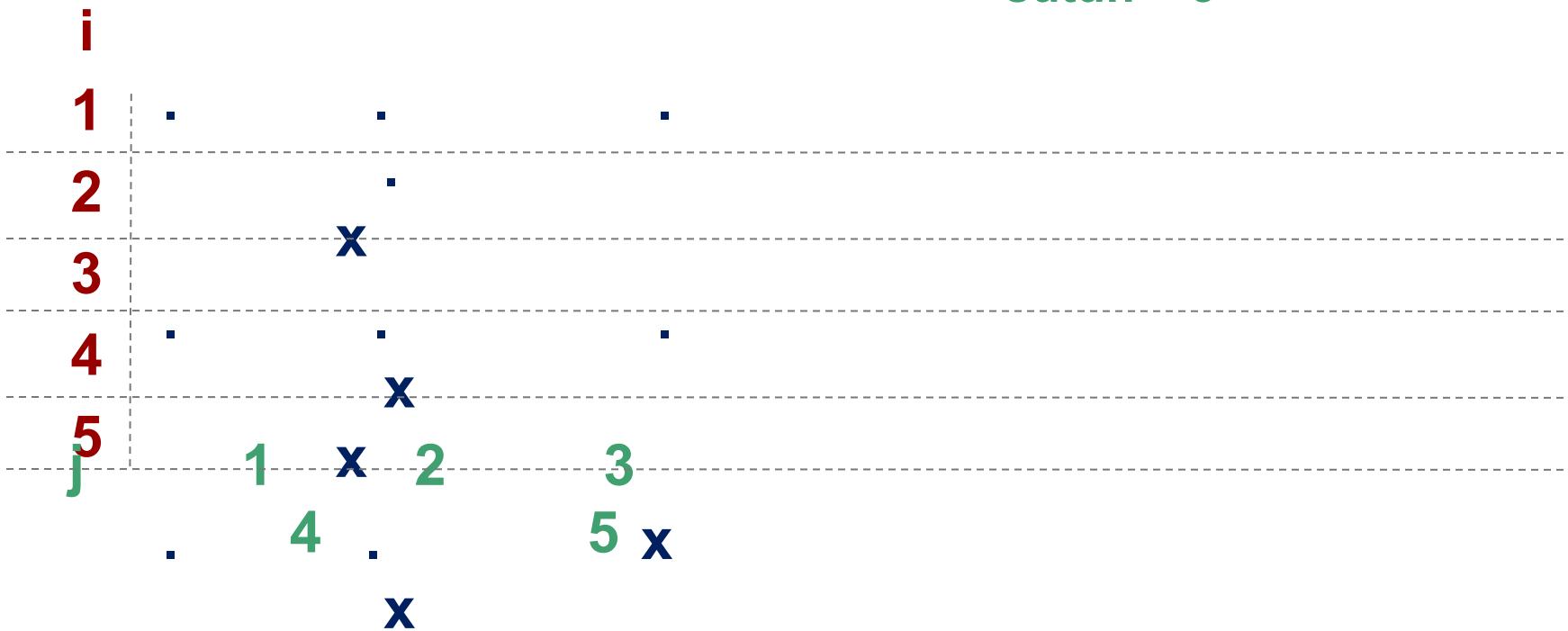
# for



# for

**satır =5**

**sutun = 5**



# for

**satir =5**

**sutun = 5**

i

1

2

3

4

5

i=1;

i=2;

i=3;

i=4;

j=1, j=2, j=3, j=4

j=1, j=2, j=3

j=3 j=2

j=1

x=2

x=1

4

2

5

3

1

.

# for

**satır =5**

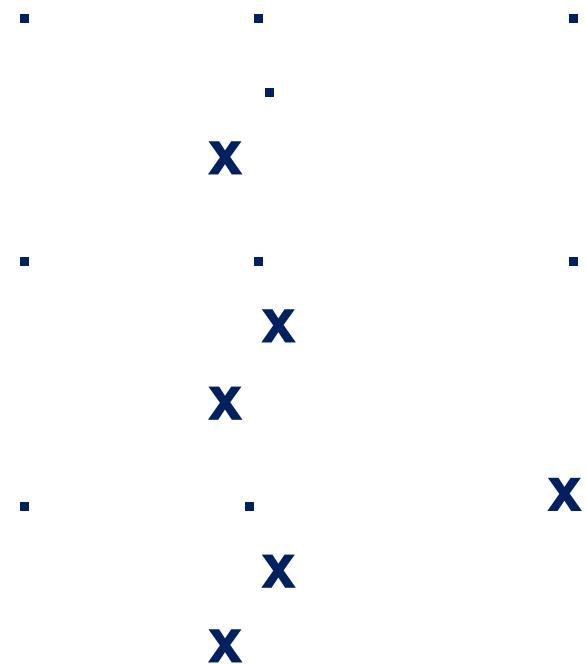
**sutun = 5**

i	j	x	i=1;	j=1;
1		.	i=2;	x=1
2	.	.	i=3;	j=1,
3	x	.	i=4;	x=2, j=2, j=3
4	.	.	i=5;	j=1, j=2, j=3,
5	1 x 2	3 5 x	i=5;	x=4, j=2, j=3, j=4, j=5
	4	.		x=5
	.	x		

# for

**analiz:**

1. satırda 4 tane . , 1 tane x
2. satırda 3 tane . , 2 tane x
3. satırda 2 tane . , 3 tane x
- ....
- i. satırda 5-i tane . , i tane x



```
#include <stdio.h>
int main() {
    int i, j;
    for (i = 1 ; i <= 5 ; i++) {
        printf("\n");
    }
    return 0;
}
```

# for

- .
- .
- .
- X
- .
- .
- X
- .
- X
- .
- X
- .
- X
- .
- analiz:
- 1. satırda 4 tane . , 1 tane x
- 2. satırda 3 tane . , 2 tane x
- 3. satırda 2 tane . , 3 tane x
- ....
- i. satırda 5-i tane . , i tane x

```
#include <stdio.h>
int main() {
    int i, j;
    for (i = 1 ; i <= 5 ; i++) {
        for (j = 1 ; j <= 5-i ; j++) {
            printf(".");
        }
        printf("\n");
    }
    return 0;
}
```

# for

X

X

X

X

analiz:

1. satırda 4 tane . , 1 tane x
2. satırda 3 tane . , 2 tane x
3. satırda 2 tane . , 3 tane x

...  
i. satırda 5-i tane . , i tane x

X

X

X

```
#include <stdio.h>
int main() {
    int i, j;
    for (i = 1 ; i <= 5 ; i++) {
        for (j = 1 ; j <= 5-i ; j++) {
            printf(".");
        }
        for (j = 1 ; j <= i ; j++) {
            printf("x");
        }
        printf("\n");
    }
    return 0;
}
```

# for

analiz:

1. satırda 4 tane . , 1 tane x
2. satırda 3 tane . , 2 tane x
3. satırda 2 tane . , 3 tane x

- ...  
i. satırda 5-i tane . , i tane x

**for**

## **analiz:**

1. satırda 4 tane . , 1 tane x , 0 tane z
  2. satırda 3 tane . , 2 tane x , 1 tane z
  3. satırda 2 tane . , 3 tane x , 2 tane z

...

  - i. satırda 5-i tane . , i tane x , i-1 tane z

```
#include <stdio.h>
int main() {
    int i, j;
    for (i = 1 ; i <= 5 ; i++) {
        printf("\n");
    }
    return 0;
}
```

**for**

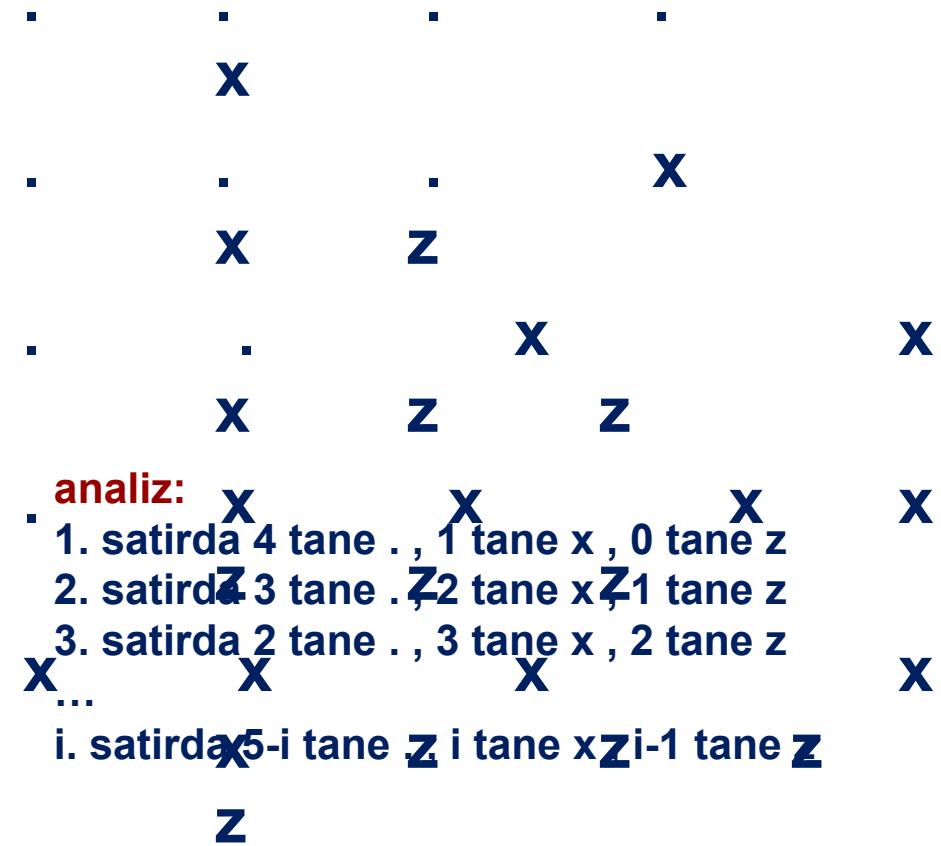
- |                |         |     |      |                         |
|----------------|---------|-----|------|-------------------------|
|                | X       |     |      |                         |
| .              | .       |     | X    |                         |
| X              |         | Z   |      |                         |
| .              |         | X   |      | X                       |
| X              |         | Z   | Z    |                         |
| <b>analiz:</b> |         |     |      |                         |
| 1.             | satirda | 4   | tane | ., 1 tane x , 0 tane z  |
| 2.             | satirda | 3   | tane | ., 2 tane x , 1 tane z  |
| 3.             | satirda | 2   | tane | ., 3 tane x , 2 tane z  |
| X              |         | X   | X    |                         |
| ...            |         |     |      |                         |
| i.             | satirda | 5-i | tane | z i tane x z i-1 tane z |
|                |         | Z   |      |                         |

```

#include <stdio.h>
int main() {
    int i, j;
    for (i = 1 ; i <= 5 ; i++) {
        for (j = 1 ; j <= 5-i ; j++) {
            printf(".");
        }
        printf("\n");
    }
    return 0;
}

```

# for



```
#include <stdio.h>
int main() {
    int i, j;
    for (i = 1 ; i <= 5 ; i++) {
        for (j = 1 ; j <= 5-i ; j++) {
            printf(".");
        }
        for (j = 1 ; j <= i ; j++) {
            printf("x");
        }
        printf("\n");
    }
    return 0;
}
```

# for

- . . . .
- x . . . .
- x z . . . x
- x z x . . x
- x z z . . x
- analiz:
  - 1. satirda 4 tane . , 1 tane x , 0 tane z
  - 2. satirda 3 tane . , 2 tane x , 1 tane z
  - 3. satirda 2 tane . , 3 tane x , 2 tane z
  - ... x x x . . x
  - i. satirda 5-i tane z i tane x z i-1 tane z

```
#include <stdio.h>
int main() {
    int i, j;
    for (i = 1 ; i <= 5 ; i++) {
        for (j = 1 ; j <= 5-i ; j++) {
            printf(".");
        }
        for (j = 1 ; j <= i ; j++) {
            printf("x");
        }
        for (j = 1 ; j <= i-1 ; j++) {
            printf("z");
        }
        printf("\n");
    }
    return 0;
}
```

# for

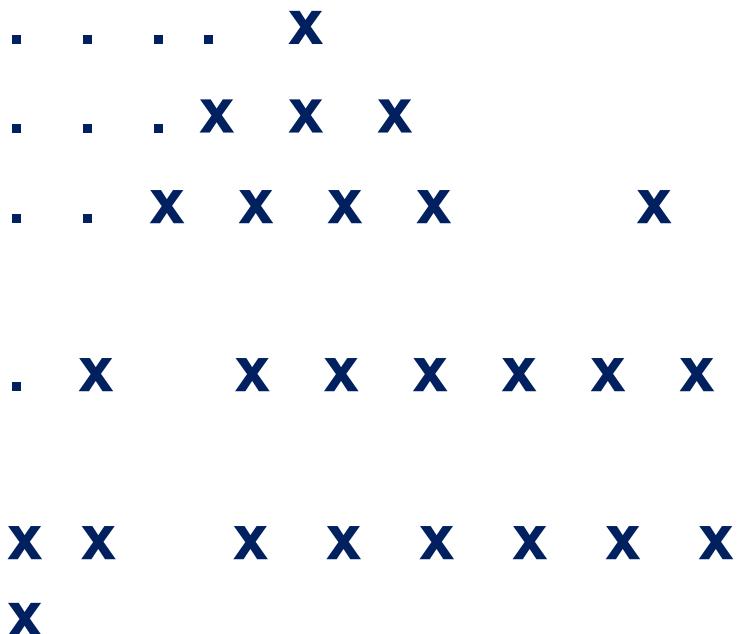
- . . . .
- x . . . .
- . x z . .
- . . x x . x
- x z z . .
- analiz: x x x z
- 1. satirda 4 tane . , 1 tane x , 0 tane z
- 2. satirda 3 tane . , 2 tane x , 1 tane z
- 3. satirda 2 tane . , 3 tane x , 2 tane z
- x ... x x x z
- i. satirda 5-i tane z i tane x z i-1 tane z

# for

**analiz:**

1. satırda 4 tane . , 1 tane x
  2. satırda 3 tane . , 3 tane x
  3. satırda 2 tane . , 5 tane x
  4. satırda 1 tane . , 7 tane x
- ...

i. satırda 5-i tane . ,  $2*i-1$  tane x



# for

```
#include <stdio.h>
int main() {
    int i, j;
    for (i = 1 ; i <= 5 ; i++) {
        printf("\n");
    }
    return 0;
}
```

. . . . x  
. . . x x x  
. . x x x x x  
. x x x x x x x  
.

**analiz:**

1. satırda 4 tane . , 1 tane x
  2. satırda 3 tane . , 3 tane x
  3. satırda 2 tane . , 5 tane x
  4. satırda 1 tane . , 7 tane x
- ...
- i. satırda 5-i tane . ,  $2*i-1$  tane x

# for

```
#include <stdio.h>
int main() {
    int i, j;
    for (i = 1 ; i <= 5 ; i++) {
        for (j = 1 ; j <= 5-i ; j++) {
            printf(".");
        }
    }
    printf("\n");
}
return 0;
```

. . . . x  
. . . x x x  
. . x x x x x x  
. x x x x x x x x

**analiz:**

1. satırda 4 tane . , 1 tane x
  2. satırda 3 tane . , 3 tane x
  3. satırda 2 tane . , 5 tane x
  4. satırda 1 tane . , 7 tane x
- ...
- i. satırda  $5-i$  tane . ,  $2*i-1$  tane x

# for

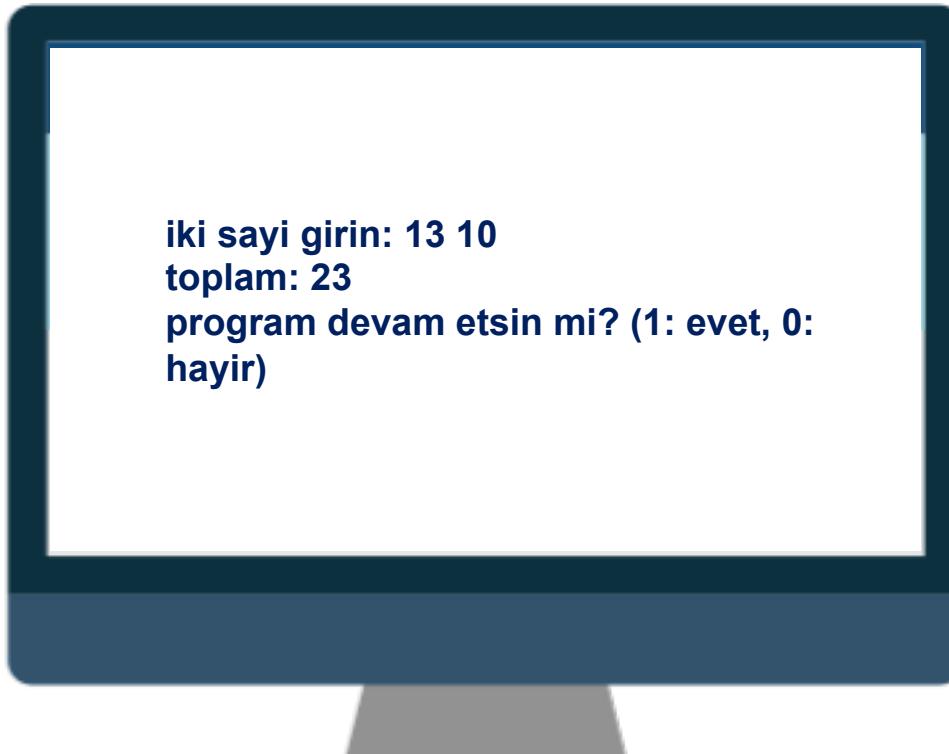
```
#include <stdio.h>
int main() {
    int i, j;
    for (i = 1 ; i <= 5 ; i++) {
        for (j = 1 ; j <= 5-i ; j++) {
            printf(".");
        }
        for (j = 1 ; j <= 2*i-1 ; j++) {
            printf("x");
        }
        printf("\n");
    }
    return 0;
}
```

. . . . x  
. . . x x x  
. . x x x x x x  
. x x x x x x x x

**analiz:**

1. satırda 4 tane . , 1 tane x
2. Satırda 3 tane . , 3 tane x
3. satırda 2 tane . , 5 tane x
4. satırda 1 tane . , 7 tane x
- ...
- i. satırda 5-i tane . , 2\*i-1 tane x

# while & break



# #include <stdio.h>

## int main() {

    int s1, s2;

**while** (1) {

        printf("iki sayı girin: ");

        scanf("%d %d", &s1, &s2);

        printf("toplam: %d\n", s1+s2);

        printf("\n");

    }

**return** 0;

}

# while & break

# for & break

```
#include <stdio.h>
int main() {
    int s1, s2;
    while (1) {
        printf("iki sayı girin: ");
        scanf("%d %d", &s1, &s2);
        printf("toplam: %d\n", s1+s2);
        int secim;
        printf("program devam etsin mi? (1: evet, 0: hayir) ");
        scanf("%d", &secim);
        if (secim == 0)
            break;
        printf("\n");
    }
    return 0;
}
```

# Basamak değeri

**sayı girin: 234**

**$1 \times 4$**

**$10 \times 3$**

**$100 \times 2$**

# Basamak degeri

234  
2 x 100      3      4 x  
                x10      1

$$234 \% 10 = 4$$

~~$234 \% 100 = 34$~~

$$234 \% 10 = 3$$
$$(234/10) \% 10 =$$

# Basamak değeri



$$(234/i) \% 10 = 4$$

$$(234/i) \% 10 = 3$$

$$(234/i) \% 10 = 2$$

$$(234/i) \% 10 = 0$$

# Basamak degeri

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

```
int main() {
```

```
    int i, sayi;
```

```
    printf("sayi girin: ");
```

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

```
    return 0;
```

```
}
```

# Basamak degeri

```
#include <stdio.h>
int main() {
    int i, sayi;
    printf("sayi girin: ");
    scanf("%d", &sayi);
    for (i = 1 ; ; i *= 10) {
        }
    return 0;
}
```

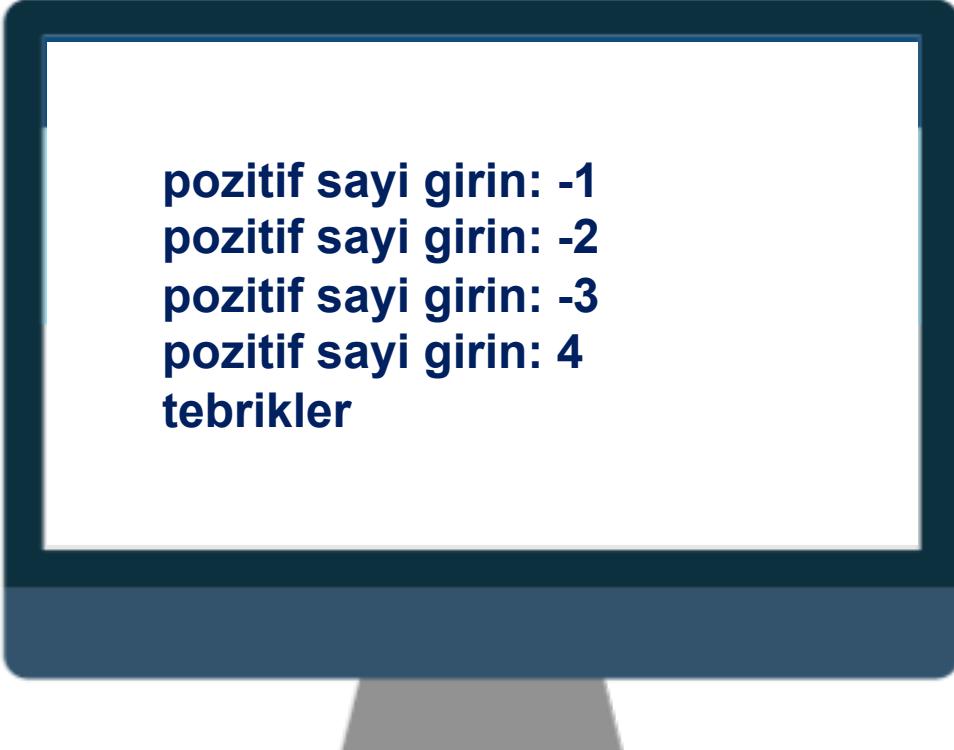
# Basamak degeri

```
#include <stdio.h>
int main() {
    int i, sayi;
    printf("sayi girin: ");
    scanf("%d", &sayi);
    for (i = 1 ; ; i *= 10) {
        int basamak = (sayi / i) % 10;
        printf("%d x %d\n", i, basamak);
    }
    return 0;
}
```

# Basamak degeri

```
#include <stdio.h>
int main() {
    int i, sayi;
    printf("sayi girin: ");
    scanf("%d", &sayi);
    for (i = 1 ; ; i *= 10) {
        if (sayi / i == 0)
            break;
        int basamak = (sayi / i) % 10;
        printf("%d x %d\n", i, basamak);
    }
    return 0;
}
```

# while & do while



```
pozitif sayı girin: -1
pozitif sayı girin: -2
pozitif sayı girin: -3
pozitif sayı girin: 4
tebrikler
```

# while & do while

```
#include <stdio.h>
int main() {
    int sayi;
    printf("pozitif sayi girin: ");
    scanf("%d", &sayi);

    return 0;
}
```

# while & do while

```
#include <stdio.h>
int main() {
    int sayi;
    printf("pozitif sayı girin: ");
    scanf("%d", &sayi);

    while (sayi < 0) {
        printf("pozitif sayı girin: ");
        scanf("%d", &sayi);
    }
    printf("tebrikler\n");

    return 0;
}
```

# while & do while

```
#include <stdio.h>
int main() {
    int sayi;
    printf("pozitif sayı girin: ");
    scanf("%d", &sayi);

    while (sayi < 0) {
        printf("pozitif sayı girin: ");
        scanf("%d", &sayi);
    }
    printf("tebrikler\n");

    do {
        printf("pozitif sayı girin: ");
        scanf("%d", &sayi);
    } while (sayi < 0);
    printf("tebrikler\n");

    return 0;
}
```

# Sorular

