

Nested For loop

row $\rightarrow i$
column $\rightarrow j$

\downarrow
(i is always changing)

column
 \downarrow
row \rightarrow 1 2 3 4
1st row \rightarrow 1 2 3 4
2nd row \rightarrow 2 3 4
3rd row \rightarrow 3 4
4th row \rightarrow 4

i=3 | i=2 | i=1 | i=4 5
j=3 5 | j=2 5 | j=1 5 | j=4 5
5 5 5 5
 \rightarrow 1 2 3 4
 \rightarrow 2 3 4
 \rightarrow 3 4
 \rightarrow 4

last value

```
int i, j;
for(i=1; i<=4; i++)
{
```

```
    for(j=i; j<=4; j++)
    {
```

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

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

77, 147, 217, 637,
707, 777,



Project Explorer Debug

1 1 column

i = 3
i != 0

i = 4
i != 0

4 3 2 1
3 2 1
2 1
1

→ 4 3 2 1
→ 3 2 1
→

row → 1 2 3 4
2 3 4
3 4
4

last value

last value
int i, j;

```
for(i=1; i<=4; i++)
{
```

```
for(j=i; j<=4; j++)
{
```

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

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

```
int i, j;
for(i=4; i>=1; i--)
{
```

```
for(j=i; j>=1; j--)
{
```

```
printf("%d", j);
}
```

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

77, 147, 217, 637,
707, 777, 697



	Model	Estimate	95% CI	P value
Age	0.006	-0.007-0.018	.39	
Gender	0.001	-0.001-0.002	.73	
Education	0.001	-0.001-0.002	.73	
Income	0.001	-0.001-0.002	.73	
Marital status	0.001	-0.001-0.002	.73	
Health insurance	0.001	-0.001-0.002	.73	
Chronic disease	0.001	-0.001-0.002	.73	
Medication	0.001	-0.001-0.002	.73	
Social support	0.001	-0.001-0.002	.73	
Stress management	0.001	-0.001-0.002	.73	
Lifestyle changes	0.001	-0.001-0.002	.73	
Mental health services	0.001	-0.001-0.002	.73	
Physical activity	0.001	-0.001-0.002	.73	
Dietary changes	0.001	-0.001-0.002	.73	
Tobacco cessation	0.001	-0.001-0.002	.73	
Alcohol moderation	0.001	-0.001-0.002	.73	
Self-monitoring	0.001	-0.001-0.002	.73	
Emotional regulation	0.001	-0.001-0.002	.73	
Cognitive restructuring	0.001	-0.001-0.002	.73	
Behavioral activation	0.001	-0.001-0.002	.73	
Problem-solving skills	0.001	-0.001-0.002	.73	
Relaxation techniques	0.001	-0.001-0.002	.73	
Support groups	0.001	-0.001-0.002	.73	
Professional counseling	0.001	-0.001-0.002	.73	
Family therapy	0.001	-0.001-0.002	.73	
Individual therapy	0.001	-0.001-0.002	.73	
Group therapy	0.001	-0.001-0.002	.73	
Online resources	0.001	-0.001-0.002	.73	
Mobile apps	0.001	-0.001-0.002	.73	
Wearable devices	0.001	-0.001-0.002	.73	
Telemedicine	0.001	-0.001-0.002	.73	
Virtual reality	0.001	-0.001-0.002	.73	
Art therapy	0.001	-0.001-0.002	.73	
Music therapy	0.001	-0.001-0.002	.73	
Dance/movement	0.001	-0.001-0.002	.73	
Garden therapy	0.001	-0.001-0.002	.73	
Horseback riding	0.001	-0.001-0.002	.73	
Fishing therapy	0.001	-0.001-0.002	.73	
Golf therapy	0.001	-0.001-0.002	.73	
Tennis therapy	0.001	-0.001-0.002	.73	
Basketball therapy	0.001	-0.001-0.002	.73	
Volleyball therapy	0.001	-0.001-0.002	.73	
Baseball therapy	0.001	-0.001-0.002	.73	
Soccer therapy	0.001	-0.001-0.002	.73	
Rugby therapy	0.001	-0.001-0.002	.73	
Hockey therapy	0.001	-0.001-0.002	.73	
Swimming therapy	0.001	-0.001-0.002	.73	
Water aerobics	0.001	-0.001-0.002	.73	
Aquatics therapy	0.001	-0.001-0.002	.73	
Yoga therapy	0.001	-0.001-0.002	.73	
Pilates therapy	0.001	-0.001-0.002	.73	
Stretching therapy	0.001	-0.001-0.002	.73	
Meditation therapy	0.001	-0.001-0.002	.73	
Transcendental meditation	0.001	-0.001-0.002	.73	
Vipassana meditation	0.001	-0.001-0.002	.73	
Therapeutic massage	0.001	-0.001-0.002	.73	
Acupuncture therapy	0.001	-0.001-0.002	.73	
Herbal medicine	0.001	-0.001-0.002	.73	
Nutritional counseling	0.001	-0.001-0.002	.73	
Dietary assessment	0.001	-0.001-0.002	.73	
Food journaling	0.001	-0.001-0.002	.73	
Meal planning	0.001	-0.001-0.002	.73	
Recipe development	0.001	-0.001-0.002	.73	
Cooking classes	0.001	-0.001-0.002	.73	
Gardening classes	0.001	-0.001-0.002	.73	
Arts and crafts	0.001	-0.001-0.002	.73	
Handicrafts	0.001	-0.001-0.002	.73	
Knitting classes	0.001	-0.001-0.002	.73	
Quilting classes	0.001	-0.001-0.002	.73	
Woodworking classes	0.001	-0.001-0.002	.73	
Painting classes	0.001	-0.001-0.002	.73	
Scrapbooking classes	0.001	-0.001-0.002	.73	
Calligraphy classes	0.001	-0.001-0.002	.73	
Jewelry making	0.001	-0.001-0.002	.73	
Flower arranging	0.001	-0.001-0.002	.73	
Event planning	0.001	-0.001-0.002	.73	
Public speaking	0.001	-0.001-0.002	.73	
Leadership training	0.001	-0.001-0.002	.73	
Time management	0.001	-0.001-0.002	.73	
Goal setting	0.001	-0.001-0.002	.73	
Decision-making	0.001	-0.001-0.002	.73	
Conflict resolution	0.001	-0.001-0.002	.73	
Communication skills	0.001	-0.001-0.002	.73	
Interpersonal relationships	0.001	-0.001-0.002	.73	
Parenting classes	0.001	-0.001-0.002	.73	
Child development	0.001	-0.001-0.002	.73	
Early childhood education	0.001	-0.001-0.		

77, 147, 217, 637,
202, 277, 597



Handwritten notes and code snippets on a screen, likely from a video recording of a coding session. The notes are organized into several sections, including array diagrams, loop logic, and code blocks.

Top Right: A hand-drawn diagram showing a sequence of numbers: 1, 2, 3, 1, 2, 3, 1, 2, 3.

Top Left: A diagram showing an array $[1, 2, 3, 4]$ with elements 1, 2, 3, and 4 circled. Below it, the sequence $1, 2, 3, 4$ is written, followed by $1, 2, 3, 4$ and $1, 2, 3, 4$ with arrows indicating a shift or movement of elements.

Middle Left: A diagram showing an array $[1, 2, 3, 4]$ with elements 1, 2, 3, and 4 circled. Below it, the sequence $1, 2, 3, 4$ is written, followed by $1, 2, 3, 4$ and $1, 2, 3, 4$ with arrows indicating a shift or movement of elements.

Middle Right: A diagram showing an array $[1, 2, 3, 4]$ with elements 1, 2, 3, and 4 circled. Below it, the sequence $1, 2, 3, 4$ is written, followed by $1, 2, 3, 4$ and $1, 2, 3, 4$ with arrows indicating a shift or movement of elements.

Bottom Left: A code snippet for a nested loop that prints the sequence 1 2 3 4 5 4 3 2 1:

```
int i, j;
for (i = 1; i <= 4; i++)
{
    for (j = 4; j >= i; j--)
    {
        printf("%d ", j);
    }
    printf("\n");
}
```

Bottom Right: A code snippet for a nested loop that prints the sequence 1 2 3 4 5 4 3 2 1:

```
int i, j;
for (i = 4; i >= 1; i--)
{
    for (j = 1; j <= i; j++)
    {
        printf("%d ", j);
    }
    printf("\n");
}
```


①
1 2
1 2 3
1 2 3 4

for $(i-1, i-4, i+1)$

```

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

```

```
print(x + d + j)
```

$$\{ \text{points}(u, m) \}$$

3

JK = 1, 0

2(-

13



Project: Classmate Debug

File: Untitled

```
1 2 3 4
1 2 3 4
1 2 3 4
1 2 3 4
```

```
i=2 | i=1
j=x | j=x
1 2 3 4
1 2 3 4
```

```
int i, j;
for(i=1; i<=4; i++)
{
    for(j=1; j<=4; j++)
    {
        printf("%d ", j);
    }
    printf("\n");
}
```

```
1
1 2
1 2 3
1 2 3 4
```

```
1
2 2
3 3 3
4 4 4 4
```

```
int i, j;
for(i=1; i<=4; i++)
{
    for(j=1; j<=i; j++)
    {
        printf("%d ", j);
    }
    printf("\n");
}
```

```
1
1 2
1 2 3
1 2 3 4
```

```
int i, j;
for(i=1; i<=4; i++)
{
    for(j=1; j<=i; j++)
    {
        printf("%d ", j);
    }
    printf("\n");
}
```

$$j=2 \quad / \quad i=1$$

$j = 1$

$$1 \quad 2 \quad 3$$

231

```
int i, j;  
for(i=1; i<=4; i++)
```

```
for (i = 1; i <= 4; i++)
```

```
printf("%7.2f", J);
```

$$\text{pointf}(r/n)$$

1
1 2
1 2 3
1 2 3 4

$$\begin{array}{r} 1 \\ 22 \\ \hline 333 \\ \hline 4444 \end{array} \rightarrow \begin{array}{r} 1 \\ 22 \end{array}$$

```
int i, j, k;
for (i = 1; i <= 4; i++) {
    // ...
}
```

for $j = 1; j \leq j+1$

```

    } printf("%d", j);
    printf("\n");
}

```

①
1 2
1 2 3
1 2 3 4

$$\begin{array}{c|c} i=1 & 102 \\ \hline j=2 & j=2 \end{array}$$

$i=3$ (not 1, 2)
 $i=4$ (not 1, 2, 3)
 $i=5$ (not 1, 2, 3, 4)
 $i=6$ (not 1, 2, 3, 4, 5)

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

```

    print(a, b, c);

```

$$\{ \text{print}(u(n));$$

4 3 2 1
3 2 1
2 1
1

4 4 4 4
3 3 3
2 2
1

```

int i, j;
for (i = 1; i <= 4; i++)
{
    for (j = 4; j >= i; j--)
    {
        printf("%d\t", i);
    }
    printf("\n");
}

```

1
1 2
1 2 3
1 2 3 4

$$\begin{array}{r} 1 \\ 22 \\ \hline 33 \end{array} \begin{array}{r} 3 \\ 44 \\ \hline 44 \end{array} \rightarrow \begin{array}{r} 1 \\ 22 \\ \hline 33 \end{array}$$

```
int i, j;
for (i = 1; i <= 3; i++)
    for (j = 1; j <= 3; j++)
```

```
for (j = 1; j <= j+1; j++)
```

```

    } printf("%d", j);
    } printf("%d", i);
}

```

①
1 2
1 2 3
1 2 3 ④

```

3 int i, j;
4 for (i = 1; i <= 4; i++)
5 {
6     for (j = 1; j <= i; j++)
7     {
8         printf("%d ", j);
9     }
10    printf("\n");
11 }

```


$i=3$ | $i=4$
 ~~$j=1$~~ | ~~$j=1$~~ 4 4 4 4
 ~~$j=2$~~ | ~~$j=2$~~ 3 3 3
 4 4 4 4 | 2 2
 + 3 3 3 | 1

```
int i, j;
for (i = 4; i > 1; i--)
{
    for (j = i; j > 1; j--)
    {
        printf("%d\n", i);
    }
    printf("%d\n", i);
}
```

```
int i, j;  
for (i = 1; i <= 4; i++)  
{  
    for (j = 4; j >= i; j--)  
    {  
        printf("%d\t", i);  
    }  
    printf("\n");  
}
```

W W W W W

$\begin{matrix} 1 \\ 1 & 2 \\ 1 & 2 & 3 \\ 1 & 2 & 3 & 4 \end{matrix}$

$$\begin{array}{r} 1 \\ 22 \\ \hline 333 \\ \hline 4444 \end{array} \rightarrow \begin{array}{r} 1 \\ 22 \\ 333 \end{array}$$

```

int i, j;
for (i = 1; i <= 4; i++)
{
    for (j = 1; j <= i; j++)
    {
        printf("%d\t", i * j);
    }
    printf("\n");
}

```

$i=1$
 $j=2$

$i=2$
 $j=3$

$i=3$
 $j=4$

$i=4$
 $j=5$

$i=5$
 $j=6$

$i=6$
 $j=7$

$i=7$
 $j=8$

$i=8$
 $j=9$

$i=9$
 $j=10$

$i=10$
 $j=11$

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①
1 2
1 2 3
1 2 3 4

① 3 5 7 9
 3 5 7 9
 5 7 9
 7 9
 ②

```

int i, j;
for (i = 1; i <= 9; i = i + 2)
{
  for (j = i; j <= 9; j = j + 2)
  {
    printf("%d\t", j);
  }
  printf("\n");
}
  
```

1 3 5 7 9
 3 5 7 9

9 7 5 3 ①
 9 7 5 3
 9 7 5
 9 7
 ②

```

int i, j;
for (i = 1; i <= 9; i = i + 2)
{
  for (j = 9; j >= i; j = j - 2)
  {
    printf("%d\t", j);
  }
  printf("\n");
}
  
```

① 3 1
 5 3 1
 7 5 3 1
 ② 9 7 5 3 1

```

int i, j;
for (i = 1; i <= 9; i = i + 2)
{
  for (j = i; j >= 1; j = j - 2)
  {
    printf("%d\t", j);
  }
  printf("\n");
}
  
```