

Assignment 8

Patterns

```
#include <stdio.h>

int main()
{
    int i, j, rows;

    // Pattern 1
    printf("\nPattern 1:\n");
    for (i = 1; i <= 5; i++)
    {
        for (j = 1; j <= i; j++)
        {
            printf("*");
        }
        printf("\n");
    }

    // Pattern 2
    printf("\nPattern 2:\n");
    rows = 5;
    for (i = 1; i <= rows; i++)
    {
        for (j = 1; j <= rows - i; j++)
        {
            printf(" ");
        }
        for (j = 1; j <= i; j++)
```

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

// Pattern 3

```
printf("\nPattern 3:\n");  
for (i = 5; i >= 1; i--)  
{  
    for (j = 1; j <= i; j++)  
    {  
        printf("*");  
    }  
    printf("\n");  
}
```

// Pattern 4

```
printf("\nPattern 4:\n");  
for (i = 1; i <= 5; i++)  
{  
    for (j = 1; j < i; j++)  
    {  
        printf(" ");  
    }  
    for (j = 5; j >= i; j--)  
    {  
        printf("*");  
    }  
}
```

```

        printf("\n");
    }

    // Pattern 5
    printf("\nPattern 5:\n");
    rows = 5;
    for (i = 1; i <= rows; i++)
    {
        for (j = 1; j <= rows - i; j++)
        {
            printf(" ");
        }
        for (j = 1; j <= 2 * i - 1; j++)
        {
            printf("*");
        }
        printf("\n");
    }

```

```

    // Pattern 6
    printf("\nPattern 6:\n");
    rows = 5;
    for (i = rows; i >= 1; i--)
    {
        for (j = 1; j <= rows - i; j++)
        {
            printf(" ");
        }
        for (j = 1; j <= 2 * i - 1; j++)
        {

```

```

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

// Pattern 7
printf("\nPattern 7:\n");
rows = 5;
for (int i = 0; i < rows; i++)
{
    for (int j = 0; j < rows - i; j++)
    {
        printf("*");
    }
    for (int k = 0; k < 2 * i; k++)
    {
        printf(" ");
    }
    for (int l = 0; l < rows - i; l++)
    {
        printf("*");
    }
    printf("\n");
}

return 0;
}

```

Pattern 1:

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

Pattern 2:

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

Pattern 3:

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

Pattern 4:

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

Pattern 5:

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

Pattern 6:

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

Pattern 7:

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