

ROT: Циклический сдвиг

Код. Шаги 0-2

```
#include <stdio.h>

void Fill(int arr[], int size){
    for(int i = 0; i < size; i++){
        arr[i] = i + 1;
    }
}

void Print(int arr[], int size){
    for(int i = 0; i < size; i++){
        printf("%d", arr[i]);
    }

    printf("\n");
}

void Shift1(int arr[], int size){
    int first = arr[0];

    for(int i = 0; i < size - 1; i++){
        arr[i] = arr[i + 1];
    }

    arr[size - 1] = first;
}

void ShiftVer1(int arr[], int size, int delta){
    delta %= size;

    for(int i = 0; i < delta; i++){
        Shift1(arr, size);
    }
}

void Reverse(int arr[], int left, int right){
    while(left < right){
        int tmp = arr[left];
        arr[left] = arr[right];
    }
}
```

```

        arr[right] = tmp;
        left++;
        right--;
    }
}

void ShiftVer2(int arr[], int size, int delta){
    delta %= size;

    Reverse(arr, 0, size - 1);
    Reverse(arr, 0, size - delta - 1);
    Reverse(arr, size - delta, size - 1);
}

int main(void){
    int N = 6;
    int ARR[N];

    Fill(ARR, N);

    int delta;
    printf("Input delta: ");
    scanf("%d", &delta);

    printf("\nApproach 1:\n");
    Print(ARR, N);
    ShiftVer1(ARR, N, delta);
    Print(ARR, N);

    printf("\nApproach 2:\n");
    Print(ARR, N);
    ShiftVer2(ARR, N, delta);
    Print(ARR, N);

    return 0;
}

```

Пример работы программы.

```
Input delta: 8
```

```
Approach 1:
```

```
123456
```

```
345612
```

```
Approach 2:
```

```
345612
```

```
561234
```