

Leetcode-4. (Rotate List).

```
int getLength(struct ListNode* head)
{
```

```
    if (head == NULL)
```

```
        return 0;
```

```
    return 1 + getLength(head->next);
```

```
}
```

```
struct ListNode* rotateRight(struct  
    ListNode* head, int k)
```

```
{
```

```
    if (head == NULL || k == 0)
```

```
        return head;
```

```
    int length = getLength(head);
```

```
    if (length == 1)
```

```
        return head;
```

```
    for (int i = 0; i < k % length; i++)
```

```
{
```

```
        struct ListNode *p = head;
```

```
        while (p->next->next != NULL)
```

```
{
```

```
            p = p->next;
```

```
}
```

```
    struct ListNode *a = (struct ListNode*)
```

```
        malloc (sizeof(struct ListNode))
```

```
    a->val = p->next->val;
```

```
    a->next = head;
```

```
    head = a;
```

```
    p->next = NULL;
```

```
}
```

```
    return head;
```

```
}
```

output

case 1:

head = [1, 2, 3, 4, 5]

k = 2

[4, 5, 1, 2, 3]

case 2:

head = [0, 1, 2]

k = 4

~~output~~

~~[0, 1, 2, 0, 1]~~

✓
S.P.
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