

```
#include <stdio.h>
#include <string.h>
#include <math.h>
#include <stdlib.h>

int main()
{ //add from here
    char ch;
    char s[100];
    char sen[100];

    scanf("%c", &ch);
    scanf("%s", s);scanf("\n");
    scanf("%[^\\n]%*sen", sen);

    printf("%c\\n", ch);
    printf("%s\\n", s);
    printf("%s\\n",sen);
    //till here
    return 0;
}
```

`//erase everything and write below code`

```
// Write Your Code Here
#include<stdio.h>

int main() {
    int n;

    scanf("%d", &n);

    printf((n==1)?"one": (n==2)?"two": (n==3)?"three": (n==4)?"four": (n==5)?"five": (n==6)?"six": (n==7)?"seven": (n==8)?"eight": (n==9)?"nine": "Greater than 9");

    return 0;
}
```

/* In this challenge, you will use logical bitwise operators. All data is stored in its binary representation. The logical operators, and C language, use 1 to represent true and 0 to represent false. The logical operators compare bits in two numbers and return true or false, or

, for each bit compared.

Bitwise AND operator & The output of bitwise AND is 1 if the corresponding bits of two operands is 1. If either bit of an operand is 0, the result of corresponding bit is evaluated to 0. It is denoted by &.

Bitwise OR operator | The output of bitwise OR is 1 if at least one corresponding bit of two operands is 1. It is denoted by |.

Bitwise XOR (exclusive OR) operator ^ The result of bitwise XOR operator is 1 if the corresponding bits of two operands are opposite. It is denoted by xor symbol

*/

```
#include <stdio.h>
#include <string.h>
#include <math.h>
#include <stdlib.h>
// from here
int max (int n, int k){
    int and=0, or=0, xor=0;
    for (int i=1; i<n; i++){
        for (int j=i+1; j<=n; j++){
            int a = i&j, b = i|j, c = i^j;
            if (a < k && and < a){
                and = a;
            }
            if (b < k && or < b){
                or = b;
            }
            if (c < k && xor < c){
                xor = c;
            }
        }
    }
    return printf("%d\n%d\n%d", and, or, xor);
}

// till here
int main() {

    int n, k;
    scanf("%d %d", &n, &k);
    max(n,k);

    return 0;
}
```

```
#include <stdio.h>
#include <string.h>
#include <math.h>
#include <stdlib.h>

int main()
{
    //add from here
    int a,b;
    scanf("%d %d",&a,&b);
    int sum = a+b;
    int diff = a-b;
    float a1,b1;
    scanf("%f %f",&a1,&b1);
    float sum1= a1+b1;
    //sum1=round(sum1*100)/100;
    float diff1 = a1-b1;
    //diff1=round(diff1*100)/100;
    printf("%d %d\n",sum,diff);
    printf("%.1f %.1f \n",sum1,diff1);

    //till here
    return 0;
}
```

```
int numberOfMatches(int n) {
    int matches = 0;
    #
    while (n > 1) {
        if (n % 2 == 0) {
            matches += n / 2;
            n /= 2;
        } else {
            matches += (n - 1) / 2;
            n = (n - 1) / 2 + 1;
        }
    }

    return matches;
}
```

```
#include <stdio.h>
#include <string.h>
#include <math.h>
#include <stdlib.h>

int main()
{ char *s[]={"null","one","two","three","four","five","six","seven","eight","nine"};
  int a, b;
  scanf("%d\\n%d", &a, &b);
  while(a<=b)
  {
    if((a<=9)&&(a>=1))
    {printf("%s\\n",s[a]);}
    else
    {
      if(a%2==0)
      {printf("even\\n");}
      else {
        printf("odd\\n");
      }
    }
    a++;
  }
  return 0;
}
```

```
#include <stdarg.h>
#include <stdio.h>
#include <stdlib.h>
#include <time.h>

#define MIN_ELEMENT 1
#define MAX_ELEMENT 1000000
//from here
int sum (int count,...) {
    va_list ptr;
    int sum=0;
    va_start(ptr, count);
    for(int i=0;i<count;i++)
    {
        sum+=va_arg(ptr, int);
    }
    va_end(ptr);

    return sum;
}

int min(int count,...) {
    va_list ptr;
    va_start(ptr, count);
    int max=va_arg(ptr, int);

    for(int i=0;i<count;i++)
    {
        int temp = va_arg(ptr, int);
        max = temp<max ? temp : max;
    }
    return max;
}

int max(int count,...) {
    va_list ptr;
    va_start(ptr, count);
    int min=va_arg(ptr, int);

    for(int i=0;i<count;i++)
    {
        int temp = va_arg(ptr, int);
        min = temp>min ? temp : min;
    }
    return min;
}

//till here
int test_implementations_by_sending_three_elements() {
    srand(time(NULL));

    int elements[3];

    elements[0] = rand() % (MAX_ELEMENT - MIN_ELEMENT + 1) + MIN_ELEMENT;
    elements[1] = rand() % (MAX_ELEMENT - MIN_ELEMENT + 1) + MIN_ELEMENT;
    elements[2] = rand() % (MAX_ELEMENT - MIN_ELEMENT + 1) + MIN_ELEMENT;

    fprintf(stderr, "Sending following three elements:\n");
    for (int i = 0; i < 3; i++) {
        fprintf(stderr, "%d\n", elements[i]);
    }

    int elements_sum = sum(3, elements[0], elements[1], elements[2]);
    int minimum_element = min(3, elements[0], elements[1], elements[2]);
    int maximum_element = max(3, elements[0], elements[1], elements[2]);

    fprintf(stderr, "Your output is:\n");
    fprintf(stderr, "Elements sum is %d\n", elements_sum);
}
```

```
fprintf(stderr, "Minimum element is %d\n", minimum_element);
fprintf(stderr, "Maximum element is %d\n\n", maximum_element);

int expected_elements_sum = 0;
for (int i = 0; i < 3; i++) {
    if (elements[i] < minimum_element) {
        return 0;
    }

    if (elements[i] > maximum_element) {
        return 0;
    }

    expected_elements_sum += elements[i];
}

return elements_sum == expected_elements_sum;
}

int test_implementations_by_sending_five_elements() {
    srand(time(NULL));

    int elements[5];

    elements[0] = rand() % (MAX_ELEMENT - MIN_ELEMENT + 1) + MIN_ELEMENT;
    elements[1] = rand() % (MAX_ELEMENT - MIN_ELEMENT + 1) + MIN_ELEMENT;
    elements[2] = rand() % (MAX_ELEMENT - MIN_ELEMENT + 1) + MIN_ELEMENT;
    elements[3] = rand() % (MAX_ELEMENT - MIN_ELEMENT + 1) + MIN_ELEMENT;
    elements[4] = rand() % (MAX_ELEMENT - MIN_ELEMENT + 1) + MIN_ELEMENT;

    fprintf(stderr, "Sending following five elements:\n");
    for (int i = 0; i < 5; i++) {
        fprintf(stderr, "%d\n", elements[i]);
    }

    int elements_sum = sum(5, elements[0], elements[1], elements[2], elements[3], elements[4]);
    int minimum_element = min(5, elements[0], elements[1], elements[2], elements[3], elements[4]);
    int maximum_element = max(5, elements[0], elements[1], elements[2], elements[3], elements[4]);

    fprintf(stderr, "Your output is:\n");
    fprintf(stderr, "Elements sum is %d\n", elements_sum);
    fprintf(stderr, "Minimum element is %d\n", minimum_element);
    fprintf(stderr, "Maximum element is %d\n\n", maximum_element);

    int expected_elements_sum = 0;
    for (int i = 0; i < 5; i++) {
        if (elements[i] < minimum_element) {
            return 0;
        }

        if (elements[i] > maximum_element) {
            return 0;
        }

        expected_elements_sum += elements[i];
    }

    return elements_sum == expected_elements_sum;
}

int test_implementations_by_sending_ten_elements() {
    srand(time(NULL));

    int elements[10];
```



```

elements[0] = rand() % (MAX_ELEMENT - MIN_ELEMENT + 1) + MIN_ELEMENT;
elements[1] = rand() % (MAX_ELEMENT - MIN_ELEMENT + 1) + MIN_ELEMENT;
elements[2] = rand() % (MAX_ELEMENT - MIN_ELEMENT + 1) + MIN_ELEMENT;
elements[3] = rand() % (MAX_ELEMENT - MIN_ELEMENT + 1) + MIN_ELEMENT;
elements[4] = rand() % (MAX_ELEMENT - MIN_ELEMENT + 1) + MIN_ELEMENT;
elements[5] = rand() % (MAX_ELEMENT - MIN_ELEMENT + 1) + MIN_ELEMENT;
elements[6] = rand() % (MAX_ELEMENT - MIN_ELEMENT + 1) + MIN_ELEMENT;
elements[7] = rand() % (MAX_ELEMENT - MIN_ELEMENT + 1) + MIN_ELEMENT;
elements[8] = rand() % (MAX_ELEMENT - MIN_ELEMENT + 1) + MIN_ELEMENT;
elements[9] = rand() % (MAX_ELEMENT - MIN_ELEMENT + 1) + MIN_ELEMENT;

fprintf(stderr, "Sending following ten elements:\n");
for (int i = 0; i < 10; i++) {
    fprintf(stderr, "%d\n", elements[i]);
}

int elements_sum = sum(10, elements[0], elements[1], elements[2], elements[3], elements
[4],
                        elements[5], elements[6], elements[7], elements[8], elements[9])
;
int minimum_element = min(10, elements[0], elements[1], elements[2], elements[3], eleme
nts[4],
                        elements[5], elements[6], elements[7], elements[8], elements[9])
;
int maximum_element = max(10, elements[0], elements[1], elements[2], elements[3], eleme
nts[4],
                        elements[5], elements[6], elements[7], elements[8], elements[9])
;

fprintf(stderr, "Your output is:\n");
fprintf(stderr, "Elements sum is %d\n", elements_sum);
fprintf(stderr, "Minimum element is %d\n", minimum_element);
fprintf(stderr, "Maximum element is %d\n\n", maximum_element);

int expected_elements_sum = 0;
for (int i = 0; i < 10; i++) {
    if (elements[i] < minimum_element) {
        return 0;
    }

    if (elements[i] > maximum_element) {
        return 0;
    }

    expected_elements_sum += elements[i];
}

return elements_sum == expected_elements_sum;
}

int main ()
{
    int number_of_test_cases;
    scanf("%d", &number_of_test_cases);

    while (number_of_test_cases--) {
        if (test_implementations_by_sending_three_elements()) {
            printf("Correct Answer\n");
        } else {
            printf("Wrong Answer\n");
        }

        if (test_implementations_by_sending_five_elements()) {
            printf("Correct Answer\n");
        } else {
            printf("Wrong Answer\n");
        }
    }
}

```

```
    if (test_implementations_by_sending_ten_elements()) {  
        printf("Correct Answer\n");  
    } else {  
        printf("Wrong Answer\n");  
    }  
}  
  
return 0;  
}
```

```

/**
 * Definition for singly-linked list.
 * struct ListNode {
 *     int val;
 *     struct ListNode *next;
 * };
 */
struct ListNode* addTwoNumbers(struct ListNode* l1, struct ListNode* l2) {
    //from here
    int carry = 0;
    struct ListNode head;
    struct ListNode* cur = &head;

    while (l1 || l2 || carry) {
        int sum = carry;
        if (l1) {
            sum += l1->val;
            l1 = l1->next;
        }

        if (l2) {
            sum += l2->val;
            l2 = l2->next;
        }

        carry = sum / 10;

        cur->next = malloc(sizeof(struct ListNode));
        cur = cur->next;
        cur->val = sum % 10;
        cur->next = NULL;
    }

    return head.next;
} //till here

```

```
#include <stdio.h>
#include <string.h>
#include <math.h>
#include <stdlib.h>
//Complete the following function.

int find_nth_term(int n, int a, int b, int c) {
    //from here
    switch (n) {
        case 1:
            return a;
        case 2:
            return b;
        case 3:
            return c;
        default:
            return find_nth_term(n - 1, a, b, c) + find_nth_term(n - 2, a, b, c) + find_nth_term(n - 3, a, b, c);
    }
} //till here

int main() {
    int n, a, b, c;

    scanf("%d %d %d %d", &n, &a, &b, &c);
    int ans = find_nth_term(n, a, b, c);

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

```
#include <stdio.h>
#include <string.h>
#include <math.h>
#include <stdlib.h>

//Complete the following function.

int marks_summation(int* marks, int number_of_students, char gender) {
    //Write your code here.
    //from here
    int sum = 0;
    int i = (gender == 'g');

    while (i < number_of_students) {
        sum += marks[i];
        i += 2;
    }
    return sum; //till here
}

int main() {
    int number_of_students;
    char gender;
    int sum;

    scanf("%d", &number_of_students);
    int *marks = (int *) malloc(number_of_students * sizeof (int));

    for (int student = 0; student < number_of_students; student++) {
        scanf("%d", (marks + student));
    }

    scanf(" %c", &gender);
    sum = marks_summation(marks, number_of_students, gender);
    printf("%d", sum);
    free(marks);

    return 0;
}
```