1 lab work 2

2 usefull links for this lab

3 problem set

4 lab contest

All given tasks are emplaced in automated checker system for **lab1**: `http://acm.kbtu.kz/cgi-bin/new-register?action=211&contest_id=125`
Feel free to submit your solutions without attempt count penalty.

5 solutions

```cpp
1  #include <iostream>
2
3  using namespace std;
4
5  int main(){
6    int n;
7    cin >> n;
8    if(n == 0){
9      cout << "None";
10   }
11   else if(n % 2 == 0){
12     cout << "Even";
13   }
14   else if(n % 2 != 0){
15     cout << "Odd";
16   }
17  return 0;}
```

```cpp
1  #include <iostream>
2
3  using namespace std;
4
5  int main(){
6    int n;
7    cin >> n;
8    if(n % 2 != 0){
9      cout << "Super";
```

```cpp
10     }
11     else if(n % 2 == 0 && n >= 2 && n <= 5){
12      cout << "Not Super";
13     }
14     else if(n % 2 == 0 && n >= 6 && n <= 20){
15      cout << "Super";
16     }
17     else if(n % 2 == 0 && n > 20){
18      cout << "Not Super";
19     }
20
21   return 0;}
```

```cpp
1   #include <iostream>
2
3   using namespace std;
4
5   int main(){
6    int year;
7        cin >> year;
8        if(year % 4 == 0 && year % 100 != 0 || year % 400 == 0){
9         cout << "YES";
10       }
11       else{
12        cout << "NO";
13       }
14
15   return 0;}
```

```cpp
1   #include <iostream>
2
3   using namespace std;
4
5   int main(){
6    int n, k;
7        cin >> n >> k;
8        if(n <= k){
9            cout << 2;
10       }
11       else{
12
13           if((2 * n) % k == 0){
14               cout << (2 * n) / k;
15           }
16           else{
17               cout << (((2 * n) / k) + 1);
```

```
18              }
19
20          }
21
22  return 0;}
```

```cpp
1  #include <iostream>
2  using namespace std;
3  int main ()
4  {
5      int a,b;
6      cin >> a >> b;
7      if(a == b){
8          cout << 0;
9      }
10     else{
11         if(a>b){
12             cout << 1;
13         }
14         else{
15             cout << 2;
16         }
17     }
18
19
20 return 0;}
```

```cpp
1  #include <iostream>
2
3  using namespace std;
4
5  int main(){
6    int n;
7    cin >> n;
8    int sum = 0;
9    for(int i = 1; i <= n; i++){
10     sum += i;
11    }
12   cout << sum;
13 return 0;}
```

```cpp
1  #include <iostream>
2
3  using namespace std;
4
5  int main(){
```

```cpp
 6    int n;
 7    cin >> n;
 8    int maxi = 0;
 9    for(int i = 0; i < n; i++){
10      int x;
11      cin >> x;
12      maxi = max(maxi, x);
13    }
14    cout << maxi;
15  }
```

```cpp
 1  #include <iostream>
 2  using namespace std;
 3
 4  int n;
 5  int cnt0 = 0;
 6  int cnt1 = 0;
 7  int main()
 8  {
 9    cin>>n;
10
11    for(int i=0;i<n;i++)
12    {
13      int x;
14      cin>>x;
15
16      if(x%2==0) cnt0++;
17      else cnt1++;
18    }
19
20    cout<<cnt0<<" "<<cnt1<<endl;
21  }
```

```cpp
 1  #include <iostream>
 2  using namespace std;
 3
 4  int n;
 5
 6  int cnt = 0;
 7  int main()
 8  {
 9    cin>>n;
10
11    for(int i=0;i<n;i++)
12    {
13      int x;
```

```
14     cin>>x;
15
16     if(x%10==7) cnt++;
17   }
18
19        cout<<cnt<<endl;
20   }
```

```
1  #include <iostream>
2  using namespace std;
3
4  int n;
5  int ans = 0;
6  int cnt = 0;
7  int main()
8  {
9    cin>>n;
10
11   for(int i=0;i<n;i++)
12   {
13           int x;
14           cin>>x;
15           cnt = 0;
16           while(x!=0)
17           {
18                int r = x%10;
19                if(r==0) cnt++;
20                x/=10;
21           }
22           ans += cnt;
23   }
24
25        cout<<ans<<endl;
26   }
```

```
1  #include<iostream>
2
3  using namespace std;
4
5  long long n;
6
7  int main() {
8    cin >> n;
9    long long cur = 1;
10   while(cur <= n) {
11     cout << cur << " ";
```

```
12      cur *= 2;
13    }
14    return 0;
15  }
```

```cpp
1  #include<iostream>
2
3  using namespace std;
4
5  long long n;
6
7  int main() {
8    cin >> n;
9    long long cur = 1;
10   while(cur <= n) {
11     cout << cur << " ";
12     cur *= 2;
13   }
14   return 0;
15 }
```

```cpp
1  #include <iostream>
2  using namespace std;
3  int main(){
4    int a, b;
5    cin >> a >> b;
6    cout << (a & b);
7  return 0;}
```

```cpp
1  #include <iostream>
2  using namespace std;
3  int main(){
4    int a, b;
5    cin >> a >> b;
6    cout << (a | b);
7  return 0;}
```

```cpp
1  #include <iostream>
2  using namespace std;
3  int main(){
4    int a, b;
5    cin >> a >> b;
6    cout << (a ^ b);
7  return 0;}
```

6 additional tasks for this lab

You can solve problems starting from A to J from the link below:
https://informatics.msk.ru/mod/statements/view.php?id=2296
note: statements are in russian