

for 循环入门

人员

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作业检查

上周作业链接: <https://www.luogu.com.cn/contest/222337>

2024-1228周六15:30

报名

编辑比赛

题目数8 | 报名人数20

比赛说明

题目列表

排行榜

名次	参赛者	总分	A	B	C	D	E	F	G	H
#1	张和嘉	800 (10.35h)	100 (28.70min)	100 (47.97min)	100 (44.37min)	100 (51.48min)	100 (1.34h)	100 (1.74h)	100 (1.92h)	100 (2.48h)
#2	管怡达	800 (10.59h)	100 (1.31h)	100 (26.30min)	100 (33.90min)	100 (53.57min)	100 (1.47h)	100 (1.54h)	100 (2.09h)	100 (2.28h)
#3	王奕辰	800 (15.39h)	100 (29.12min)	100 (33.00min)	100 (50.33min)	100 (1.18h)	100 (1.92h)	100 (4.02h)	100 (2.19h)	100 (4.20h)
#4	张瑞熙	800 (15.43h)	100 (30.57min)	100 (37.03min)	100 (47.40min)	100 (1.38h)	100 (1.89h)	100 (3.79h)	100 (3.89h)	100 (2.56h)
#5	王伯安	800 (1.07d)	100 (37.43min)	100 (36.78min)	100 (1.33h)	100 (52.15min)	100 (1.68h)	100 (1.83h)	100 (16.35h)	100 (2.51h)
#6	于马禾祥	800 (1.32d)	100 (6.01h)	100 (1.20h)	100 (4.95h)	100 (1.50h)	100 (1.81h)	100 (5.26h)	100 (5.38h)	100 (5.65h)
#7	周尚融	800 (1.91d)	100 (41.82min)	100 (42.05min)	100 (1.33h)	100 (58.60min)	100 (1.84h)	100 (1.56h)	100 (19.21h)	100 (19.56h)
#8	张祐嘉	800 (3.17d)	100 (44.98min)	100 (46.67min)	100 (23.00h)	100 (1.49h)	100 (1.69h)	100 (1.82h)	100 (23.29h)	100 (23.34h)
#9	孙鹤轩	800 (12.97d)	100 (4.21d)	100 (4.17d)	100 (1.34h)	100 (1.47h)	100 (2.07h)	100 (1.72h)	100 (4.21d)	100 (2.62h)
#10	刘逸	800 (16.51d)	100 (4.06d)	100 (47.88min)	100 (1.05h)	100 (1.13h)	100 (4.07d)	100 (2.21h)	100 (4.08d)	100 (4.09d)
#11	王梓钧	800 (17.00d)	100 (29.90min)	100 (44.25min)	100 (4.17d)	100 (1.13h)	100 (4.20d)	100 (4.21d)	100 (4.23d)	100 (2.02h)
#12	孙以诺	740 (4.42d)	100 (2.23h)	100 (1.73h)	100 (1.31d)	100 (2.92h)	100 (1.27d)	100 (3.74h)	100 (2.09h)	40 (1.31d)
#13	王子涵	670 (7.44d)		100 (1.38h)	100 (2.45h)	100 (1.48h)	100 (1.76h)	80 (2.49h)	100 (6.95d)	90 (2.36h)
#14	唐敬瑶	534 (24.86d)		100 (44.87min)	100 (6.27d)	100 (1.58h)	100 (6.29d)	100 (6.32d)	34 (6.94d)	
#15	胡瑾泽	500 (3.85d)	100 (17.97h)	100 (18.28h)	100 (18.51h)	100 (18.60h)	100 (18.95h)			
#16	刘维重	490 (5.41h)	90 (37.18min)	100 (45.97min)	100 (57.72min)	100 (1.13h)		100 (1.93h)		
#17	潘奕成	304 (5.65h)		80 (44.28min)	80 (1.44h)	100 (1.59h)	44 (1.89h)			
#18	张原宁	240 (1.74d)		60 (18.66h)		100 (1.54h)		80 (21.61h)		

作业

<https://www.luogu.com.cn/contest/223284>

课堂表现

今天学了 for 循环, 同学们整体课上听讲做题都不错, 课下也一定要好好复习, for 循环这里非常重要, 同学们一定要掌握扎实。

课堂内容

B2048 计算邮资

```
#include<bits/stdc++.h>
using namespace std;
int main(){
    int a,c;
    char b;
    cin>>a>>b;
    if(a<=1000){
        c=8;
    }
    else{
        if((a-1000)%500==0){
            c=4*(a-1000)/500+8;
        }
        else{
            c=4*((a-1000)/500+1)+8;
        }
    }

    if(b=='n'){
        c+=0;
    }
    else{
        c+=5;
    }
    cout<<c;
    return 0;
}
```

P5712 【深基3.例4】Apples

```
#include<bits/stdc++.h>

using namespace std;

int main() {
    int n; cin >> n;
    cout << "Today, I ate " << n << " apple";
    if (n > 1) {
        cout << "s.";
    }
}
```

```

    else {
        cout << ".";
    }
    return 0;
}

```

for 循环讲解

for (第一次循环之前做什么 ; 控制循环(进行循环的条件) ; 每次循环的最后做什么)

```

for (命令1; 命令2; 命令3) {
    命令4
    命令5
}

```

1 2 4 5 3 2 4 5 3 2 4 5 3 2 4 5 3 2 (不成立的时候结束)

```

// 输出 1~100, 循环 100 次
for (int i = 1; i <= 100; i++) {
    cout << i << endl;
}

```

让大家输出 1 4 7 10 13 16 19 ... 100

```

1.
    for (int i = 1; i <= 100; i+=3) {
        cout << i << endl;
    }
2.
    for (int i = 1; i <= 100; i++) {
        if (i%3==1) {
            cout << i << endl;
        }
    }

```

输入 n, 输出 1~n

```

int n;
cin >> n;
for (int i = 1; i <= n; i++) {
    cout << i << endl;
}

```

输入 n, 输出 1~n 中包含 2 的数 (最多三位数)

```

for (int i = 1; i <= n; i++) {
    int a = i%10, b = (i/10)%10, c = (i/100)%10;
    if (a==2 || b==2 || c==2) {
        cout << i << endl;
    }
}

```

```
输出 100 ~ 1
for (int i = 100; i >= 1; i--) {
    cout << i << endl;
}
```

U519035 请输出带有特殊尾数的数

```
for (int i = 1; i <= n; i++) {
    if (i%2 == 1) {
        cout << i << endl;
    }
}
```

U519036 输出是2的倍数，但非3的倍数的数

```
for (int i = 1; i <= n; i++) {
    if (i%2==0 && i%3!=0) {
        cout << i << endl;
    }
}
```

U519038 请输出所有的2位数中，含有数字2的整数

```
for (int i = 10; i <= 99; i++) {
    if (i%10==2 || i/10==2) {
        cout << i << endl;
    }
}
```

U519041 请输出所有的3位对称数

```
for (int i = 100; i <= 999; i++) {
    if (i%10==i/100) {
        cout << i << endl;
    }
}
```

U519043 输出满足条件的整数1

```
#include <iostream>
```

```
using namespace std;

int main()
{
    for (int i = 10; i <= 99; i++) {
        int a = (i/10)%10, b = i%10;
        if (a>b && (a+b)%2==0) {
            cout << i << endl;
        }
    }
    return 0;
}
```

U519044 输出满足条件的整数2

```
#include <bits/stdc++.h>

using namespace std;

int main()
{
    for (int i = 100; i <= 999; i++) {
        int a = i/100, b = (i/10)%10, c = i%10;
        if ((a+b+c)%2==0 && a>b && b>c) {
            cout << i << endl;
        }
    }
    return 0;
}
```

U519046 输出满足条件的整数3

```
#include <bits/stdc++.h>

using namespace std;

int main()
{
    int n;
    cin >> n;
    for (int i = 1; i <= n; i++) {
        if (i%3==1) {
            cout << i << endl;
        }
    }
    return 0;
}
```

U519047 输出满足条件的整数4

```
#include <bits/stdc++.h>

using namespace std;

int main()
{
    int n;
    cin >> n;
    for (int i = 1; i <= n; i++) {
        int a = i/100, b = (i/10)%10, c = i%10;
        if ((a==3||b==3||c==3||a==5||b==5||c==5) && i%2==0) {
            cout << i << endl;
        }
    }
    return 0;
}
```

U519048 输出满足条件的整数5

```
#include <bits/stdc++.h>

using namespace std;

int main()
{
    for (int i = 1000; i <= 9999; i++) {
        int a = i/1000, b = (i/100)%10, c = (i/10)%10, d = i%10;
        if ((a+b)%2==0 && (c+d)%2!=0 && a+b>c+d && i%8==0) {
            cout << i << endl;
        }
    }
    return 0;
}
```