

第4次作业

Ex1

0, 1, 0, 1, 0

Ex2

1, 0, 1, 0, 1, 0

Ex3

1. $x \% 2 == 0 \ \&\& \ y \% 2 == 1$
2. 等价于a和b不能是一奇一偶: $(a + b) \% 2 != 1$
3. $(!a \ || \ !b) \ \&\& \ a + b != 0$
4. $(x > 10 \ \&\& \ x < 100) \ || \ (x < 0 \ \&\& \ x != -2.0)$
5. $1.0/\text{sqrt}(2*3.1415926)*\exp(-x*x/2)$
6. $r1*r1 \leq \text{sqrt}(x*x + y*y) \ \&\& \ \text{sqrt}(x*x + y*y) \leq r2*r2$
7. $m \% 5 == 0 \ \&\& \ m \% 7 == 0 \ \&\& \ m \% 35 != 0$
8. $m \% p == 0 \ \&\& \ n \% p == 0 \ \&\& \ m \% q != 0 \ \&\& \ n \% q != 0$
9. $(x * y + (x + y) / (4 * a)) / 2$
10. $\sin(x*x + y*y) * \cos(x + y) / 3$

Ex8

b=13, c=11, d=18

Ex9

b=13, c=20, d=18

Ex10

b=13, c=20, d=27

Ex12

源代码

```
1  #include <stdio.h>
2
3  int main() {
4
5      const double pi = 3.14159;
6      double r, h;
7      printf("input r and h: ");
8      scanf("%lf %lf", &r, &h);
9
10     printf("s = %.4lf\n", 2 * pi * r * h);
11     printf("ssum = %.4lf\n", 2 * pi * r * h + 2 * pi * r * r);
12     printf("v = %.4lf\n", pi * r * r * h);
```

```
13
14     return 0;
15 }
```

运行结果

```
PS E:\Code_C++\hw04> cd "e:\Code_C++\h
input r and h: 3.5 4.6
s = 101.1592
ssum = 178.1282
v = 177.0286
```

Ex13

源代码

```
1  #include <stdio.h>
2
3  void bin(int n) {
4      int b[8] = {0};
5      for (int i = 0; i < 8; i++) {
6          if (n) {
7              b[7 - i] = n % 2;
8              n /= 2;
9          }
10         else
11             break;
12     }
13
14     for (int i = 0; i < 8; i++) {
15         printf("%2d", b[i]);
16     }
17 }
18
19 int main() {
20
21     int n;
22
23     for (int i = 0; i < 8; i++) {
24         printf("input a number(< 256): ");
25         scanf("%d", &n);
26         if (n > 255 || n < 0)
27             break;
28         printf("%d ---> ", n);
29
30         bin(n);
31         printf("\n");
32     }
33
34     return 0;
35 }
```

运行结果

```
PS E:\Code_C++\hw04> cd "e:\Code_C++\hw04\  
input a number(< 256): 43  
43 --->  0 0 1 0 1 0 1 1  
input a number(< 256): 78  
78 --->  0 1 0 0 1 1 1 0  
input a number(< 256): 145  
145 --->  1 0 0 1 0 0 0 1  
input a number(< 256): 236  
236 --->  1 1 1 0 1 1 0 0  
input a number(< 256): 255  
255 --->  1 1 1 1 1 1 1 1  
input a number(< 256): -1  
PS E:\Code_C++\hw04> █
```