

4.枚举算法

1、枚举n到m之间的所有质数

2、枚举字符

```
1  #include <iostream>
2  #include <ctime>
3  #include <string>
4  #include <algorithm>
5  using namespace std;
6
7  int main()
8  {
9      srand(time(NULL));
10     char s[10];
11     for (int i = 0; i < 10; i++)
12     {
13         s[i] = (char)(65 + rand() % 26);
14         printf("%c",s[i]);
15     }
16     printf("\n");
17     for(int i = 0; i < 10; i++)
18     {
19         for (int j = 0; j < 26; j++)
20         {
21             if(s[i] == (char)(65+j))
22             {
23                 cout << (char)(65+j);
24                 break;
25             }
26         }
27     }
28     return 0;
29 }
```

3、回文数字

4、生日蜡烛

```
1  int main()
2  {
3      for (int i = 1; i <= 200; i++)
4      {
```

```

5     int can = 0, j = i;
6     while (can < 236 && j <= 200)
7     {
8         can+= j;
9         j++;
10    }
11    if (can == 236)
12        cout << i << endl;
13 }
14 }

```

5、最大子阵

6、四平方和

```

1  int main()
2  {
3      int N;
4      cin >> N;
5      for (int a = 0; a*a <= N; a++)
6      {
7          for (int b = a; a*a+b*b <= N;b++)
8          {
9              for (int c = b; a*a +b*b +c*c <= N;c++)
10             {
11                 d = sqrt(N-a*a-b*b-c*c);
12                 if (a*a +b*b+ c*c + d*d == N)
13                 {
14                     cout << a << " " <<b " " <<c <<" " <<d<<endl;
15                     return 0;
16                 }
17             }
18         }
19     }
20     return 0;
21 }

```

7、装饰效果 (dp)

8、双节棍 (dp)