Chapter5-6

#include <stdio.h>

int factorial(int n)

{

/\*求n的阶乘\*/

if (n==1) return 1;

return n\*factorial(n-1);

}

void main()

{

/\*计算1-20的阶乘和\*/

int i, n, result;

n = 20;

result = 0; // 保存结果

for(i=1; i<=n; i++) result += factorial(i);

printf("1!+2!+3!+···+20! = %d", result);

}

Chapter5-10

#include <stdio.h>

void main()

{

/\*求分数数列前二十项和\*/

double tmp, fz=2, fm=1;

int i, n=20;

double result=0;

for (i=0; i<n; i++)

{

result += fz/fm;

tmp = fz;

fz = fz+fm;

fm = tmp;

}

printf("分数数列前%d项和为：%lf", n, result);

}

Chapter5-11

#include <stdio.h>

void main()

{

/\*100m高处释放球\*/

int n=10,i;

float result=0, h=100;

for (i=0; i<10; i++)

{

result = i==0? 100:result+h\*2;

h = h/2;

printf("第%d次，result=%f,h=%f\n",i+1, result, h);

}

printf("10 result=%10fM\n",result);

printf("10 h =%10fM",h);

}

Chapter6-10

#include <stdio.h>

void main()

{

/\*qwertyuiopasdfghjklzxcvbnm1234567890 -=QWERTYUIOPASDFGHJKLZXCVBNM1234567890 -=

总共：

26\*3个小写

26\*3个大写

20\*3个数字

4\*3个空格

4\*3个其他字符

\*/

char filename[]={"chapter6-10.txt"}, str[81];

FILE \*fp;

int i,j;

int upper\_case=0, lower\_case=0, number=0, blank\_space=0, others=0;

fp = fopen(filename, "r");

fgets(str, 81, fp);

for (j=0; j<3; j++)

{

for (i=0; i<80; i++)

{

//printf("%c\n", str[i]);

if (str[i]>=65 && str[i]<=90) upper\_case+=1;

else if (str[i]>=97 && str[i]<=122) lower\_case+=1;

else if (str[i]>=48 && str[i]<=57) number+=1;

else if (str[i]==32) blank\_space+=1;

else others+=1;

}

}

fclose(fp);

printf("大写字母有 %d个\n", upper\_case);

printf("小写字母有 %d个\n", lower\_case);

printf("数字有 %d个\n", number);

printf("空格有 %d个\n", blank\_space);

printf("其他字符有 %d个\n", others);

}

Chapter6-12

#include <stdio.h>

void main()

{

/\*加密解密

明文：I am the best in the Universe!\*/

char massage[] = {"I am the best in the Universe!"};

//char massage[] = {"ABCDEFGHIJKLMNOPQRSTUVWXYZ"};

//char massage[] = {"abcdefghijklmnopqrstuvwxyz"};

int i;

printf("%s\n", massage);

//加密

for (i=0; i<sizeof(massage)-1; i++)

{

if (massage[i]>=65 & massage[i]<=90) massage[i] = 65 + 26 - (massage[i]-65+1);

if (massage[i]>=97 & massage[i]<=122) massage[i] = 97 + 26 - (massage[i]-97+1);

}

printf("%s", massage);

//printf("%d",sizeof(massage)-1);

//for (i=0; i<)

}

Chapter7-4

#include <stdio.h>

void test(int arr[3][3])

{

int i, j, tmp;

for (i=0; i<3; i++)

{

for (j=0; j<3; j++)

{

if (i > j)

{

tmp = arr[i][j];

arr[i][j] = arr[j][i];

arr[j][i] = tmp;

}

}

}

}

void print\_arr(int arr[3][3])

{

int i,j;

for (i=0; i<3; i++)

{

for (j=0; j<3; j++)

printf("%4d",arr[i][j]);

printf("\n");

}

printf("\n");

}

void main()

{

int arr[3][3]={{1, 2, 3,}, {4, 5, 6}, {7, 8, 9}};

print\_arr(arr);

test(arr);

print\_arr(arr);

}

Chapter7-5

#include <stdio.h>

#include <string.h>

char rev(char s[])

{

/\*转变存储顺序\*/

int i, n, t;

char tmp;

n = strlen(s);

t = n%2==0? n/2:(n-1)/2;

for (i=0; i<t; i++)

{

tmp = s[i];

s[i]=s[n-1-i];

s[n-1-i] = tmp;

}

}

void main()

{

char s[100];

gets(s);

rev(s);

puts(s);

}

Chapter7-11

#include <stdio.h>

#include <string.h>

char bubble\_sort(char s[])

{

/\*起泡法\*/

int i, j, n, tmp;

n = strlen(s);

for (i=0; i<n-1; i++)

{

for (j=0; j<n-1-i; j++)

{

if(s[j] > s[j + 1])

{

tmp = s[j];

s[j] = s[j + 1];

s[j + 1] = tmp;

}

}

}

}

void main()

{

char s[100];

gets(s);

bubble\_sort(s);

puts(s);

}