1、

#include<stdio.h>

#include<time.h>

#include<stdlib.h>

#include<math.h>

int i, j,x, y;

void avest(float a[11][6])

{

float s = 0;

for (i = 0; i <= 9; i++)

{

for (j = 0; j <= 4; j++)s += a[i][j];

a[i][5] = s / 5;

s = 0;

}

}

void avegr(float a[11][6])

{

float s = 0;

for (j = 0; j <= 4; j++)

{

for (i = 0; i <= 9; i++)s += a[i][j];

a[10][j] = s / 10;

s = 0;

}

}

void maxar(float a[11][6])

{

float mx = a[0][0];

for (i = 0; i <= 9; i++)

for (j = 0; j <= 4; j++)if (a[i][j] > mx)

{

mx = a[i][j];

x = i + 1, y = j + 1;

}

}

float avesqr(float a[11][6])

{

float s = 0, s2 = 0,sr=0;

for (i = 0; i <= 9; i++)

{

s += a[i][5];

s2 += pow(a[i][5], 2);

}

sr = s2 / 10 - pow(s / 10, 2);

return sr;

}

void printar(float a[11][6])

{

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

{

for (j = 0; j <= 5; j++)printf("%4.1f ", a[i][j]);

putchar('\n');

}

}

void main()

{

float grade[11][6],s2r;

grade[10][5] = '\0';

srand(time(NULL));

for (i = 0; i <= 9; i++)

for (j = 0; j <= 4; j++)grade[i][j] = rand() % 100 + 1;

avest(grade);

avegr(grade);

maxar(grade);

s2r = avesqr(grade);

printf("最高学生与课程有序数对为(%d,%d)\n平均分方差为%f\nworning:\n每最后一行或最后一列为学生或课程的平均值，右下角0为无效数字请忽略\n", x, y,s2r);

printar(grade);

}

2、

#include<stdio.h>

#include<string.h>

int i, j;

void scanfn(int a[10], char name[10][15])

{

printf("请输入编号及姓名\n");

for (i = 0; i <= 9; i++)

{

scanf\_s("%d", &a[i]);

gets\_s(name[i]);

}

}

void sort(int a[10], char name[10][15])

{

int t;

char temp[15];

for (i = 0; i <= 8; i++)

for (j = 0; j < 9 - i; j++)

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

{

t = a[j + 1];

a[j + 1] = a[j];

a[j] = t;

strcpy\_s(temp, name[j]);

strcpy\_s(name[j], name[j + 1]);

strcpy\_s(name[j + 1], temp);

}

}

void found(int n, int a[10], char name[10][15])

{

int min = 0, max = 9, mid;

while (min <= max)

{

mid = min + (max - min) / 2;

if (a[mid] == n)

break;

else if (a[mid] < n)

min = mid + 1;

else if (a[mid] > n)

max = mid - 1;

}

if (min <= max)

printf("%d %s", a[mid], name[mid]);

else

printf("工号不存在");

}

void main()

{

int a[10], n;

char name[10][15];

scanfn(a, name);

sort(a,name);

printf("请输入要查找的工号\n");

scanf\_s("%d", &n);

printf("您要查找的工号及姓名为:\n");

found(n, a, name);

}