

四. 实验结果与分析

2

源程序：

```
# include <stdio.h>
int main()
{
    int min, x, y, *pmin, *px, *py;
    scanf("%d%d", &x, &y);
    px = &x;
    py = &y;
    pmin = &min;
    *pmin = *px;
    if (*pmin > *py) *pmin = *py;
    printf("min=%d\n", min);
    return 0;
}
```

(1) 2 error(s) 4 warnings

① (10): error C2065: “min”: 未声明的标识符

(4): int min, x, y, *pmin, *px, *py;

② (8)(9)(10): warning C4047: “=”: “int” 与 “int*” 的间接级别不同

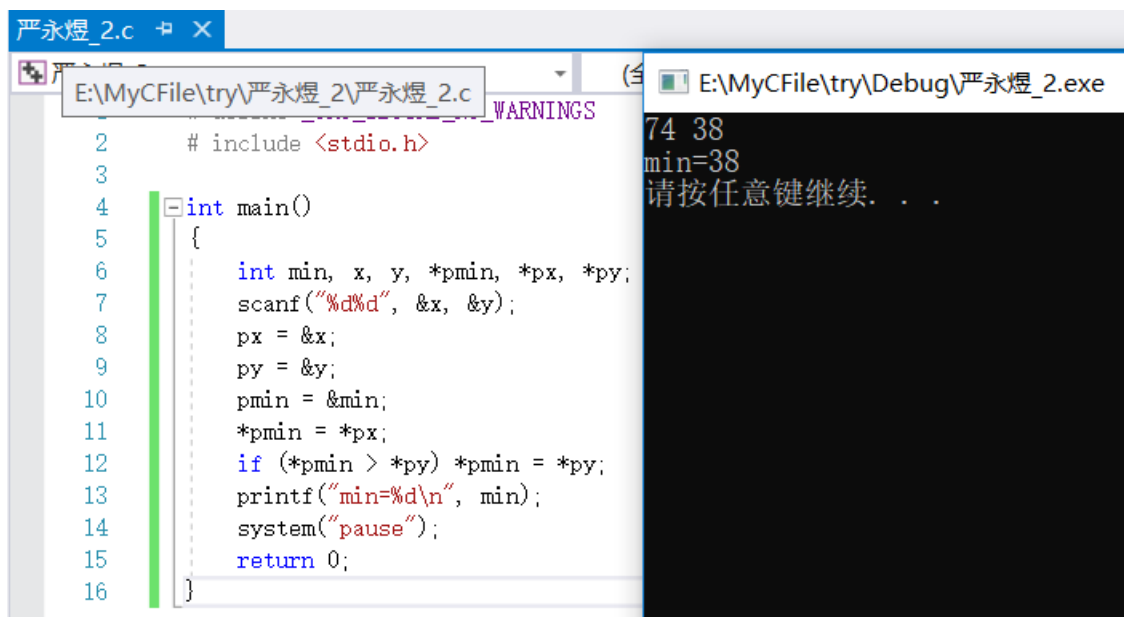
(8): px = &x;

(9): py = &y;

(10): pmin = &min;

(3) 错误行号: 11 正确语句: if (*pmin > *py);

错误行号: 12 正确语句: *pmin = *py;



3-1

源程序:

```
# include <stdio.h>

int tran(int year, int *month, int *day){
    int cases=0;
    if ((year%4==0 && year%100!=0) || (year%400==0)) {
        if (*day>0&&*day<=31) cases=12;
        else if (*day>31&&*day<=60) cases=11;
        else if (*day>60&&*day<=91) cases=10;
        else if (*day>91&&*day<=121) cases=9;
        else if (*day>121&&*day<=152) cases=8;
        else if (*day>152&&*day<=182) cases=7;
        else if (*day>182&&*day<=213) cases=6;
        else if (*day>213&&*day<=244) cases=5;
        else if (*day>244&&*day<=274) cases=4;
        else if (*day>274&&*day<=305) cases=3;
        else if (*day>305&&*day<=335) cases=2;
        else if (*day>335&&*day<=366) cases=1;
        else cases=-1;
        switch(cases) {
            case 1: *month+=1;*day-=30;
            case 2: *month+=1;*day-=31;
            case 3: *month+=1;*day-=30;
            case 4: *month+=1;*day-=31;
            case 5: *month+=1;*day-=31;
            case 6: *month+=1;*day-=30;
            case 7: *month+=1;*day-=31;
            case 8: *month+=1;*day-=30;
            case 9: *month+=1;*day-=31;
            case 10: *month+=1;*day-=29;
            case 11: *month+=1;*day-=31;
            case 12: *month+=1;break;
            default: return -1;
        }
    }
    else{
        if (*day>0&&*day<=31) cases=12;
        else if (*day>31&&*day<=59) cases=11;
        else if (*day>59&&*day<=90) cases=10;
        else if (*day>90&&*day<=120) cases=9;
        else if (*day>120&&*day<=151) cases=8;
        else if (*day>151&&*day<=181) cases=7;
        else if (*day>181&&*day<=212) cases=6;
```

```

else if (*day>212&&*day<=243) cases=5;
else if (*day>243&&*day<=273) cases=4;
else if (*day>273&&*day<=304) cases=3;
else if (*day>304&&*day<=334) cases=2;
else if (*day>334&&*day<=365) cases=1;
else cases=-1;
switch(cases) {
    case 1: *month+=1;*day-=30;
    case 2: *month+=1;*day-=31;
    case 3: *month+=1;*day-=30;
    case 4: *month+=1;*day-=31;
    case 5: *month+=1;*day-=31;
    case 6: *month+=1;*day-=30;
    case 7: *month+=1;*day-=31;
    case 8: *month+=1;*day-=30;
    case 9: *month+=1;*day-=31;
    case 10: *month+=1;*day-=28;
    case 11: *month+=1;*day-=31;
    case 12: *month+=1;break;
    default: return -1;
}
}
return 1;
}
int main() {
    int year, day, month=0, *m=&month, *d=&day, isTrue=0;
    printf("请输入 Julian 历法的日期(年, 第几天): ");
    scanf("%d,%d",&year,&day);
    isTrue = tran(year,m,d);
    if (isTrue==1) printf("现代历法的日期是:%d 年%d 月%d 日\n",year,month,day);
    else printf("您输入的 Julian 日期有误!\n");
    return 0;
}

```

The screenshot shows a C program being executed. The source code on the left defines a function `tran` that converts a Julian date to a Gregorian date. The main function prompts the user for a Julian date, calls `tran`, and prints the result. The output on the right shows the user inputting '2018, 69', which corresponds to March 10, 2018.

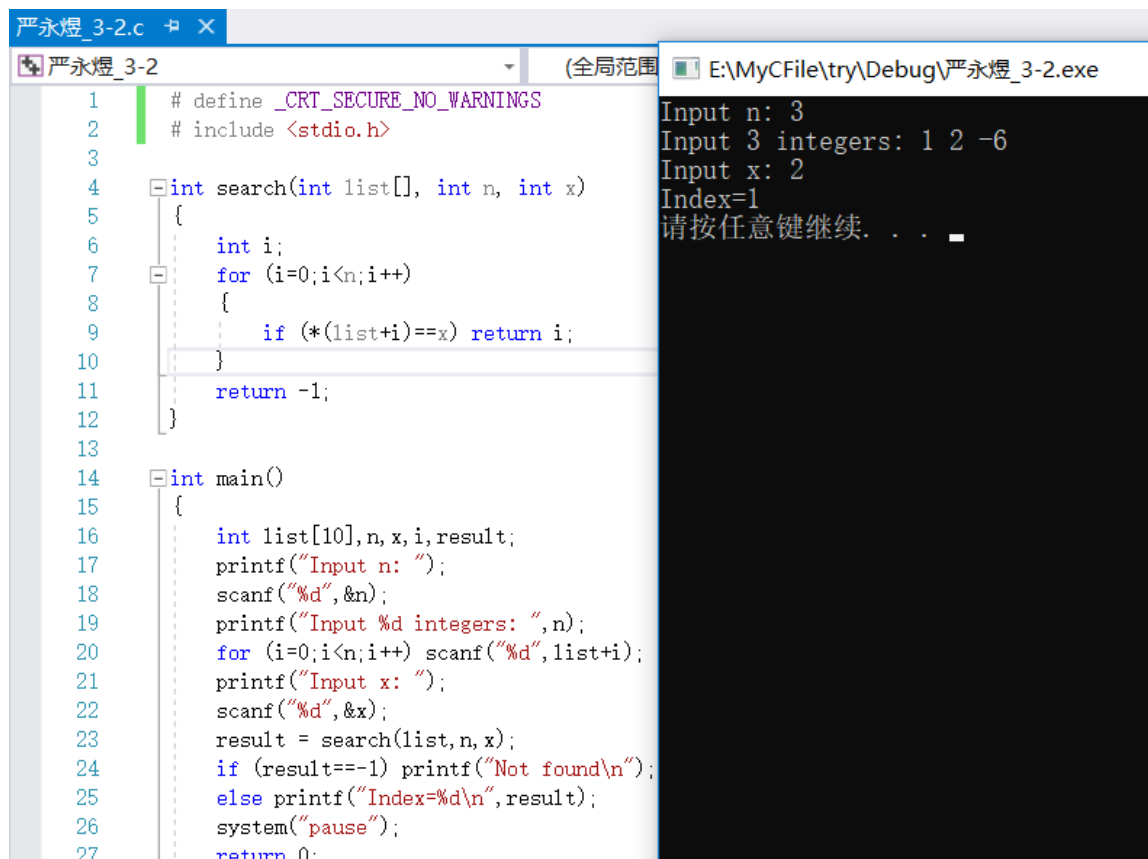
3-2

源程序：

```
# include <stdio.h>

int search(int list[], int n, int x)
{
    for (int i=0;i<n;i++) if (*(list+i)==x) return i;
    return -1;
}

int main()
{
    int list[10],n,x,i,result;
    printf("Input n: ");
    scanf("%d",&n);
    printf("Input %d integers: ",n);
    for (i=0;i<n;i++) scanf("%d",list+i);
    printf("Input x: ");
    scanf("%d",&x);
    result = search(list,n,x);
    if (result== -1) printf("Not found\n");
    else printf("Index=%d\n",result);
    return 0;
}
```



```
严永煜_3-2.c  严永煜_3-2  (全局范围  E:\MyCFile\try\Debug\严永煜_3-2.exe

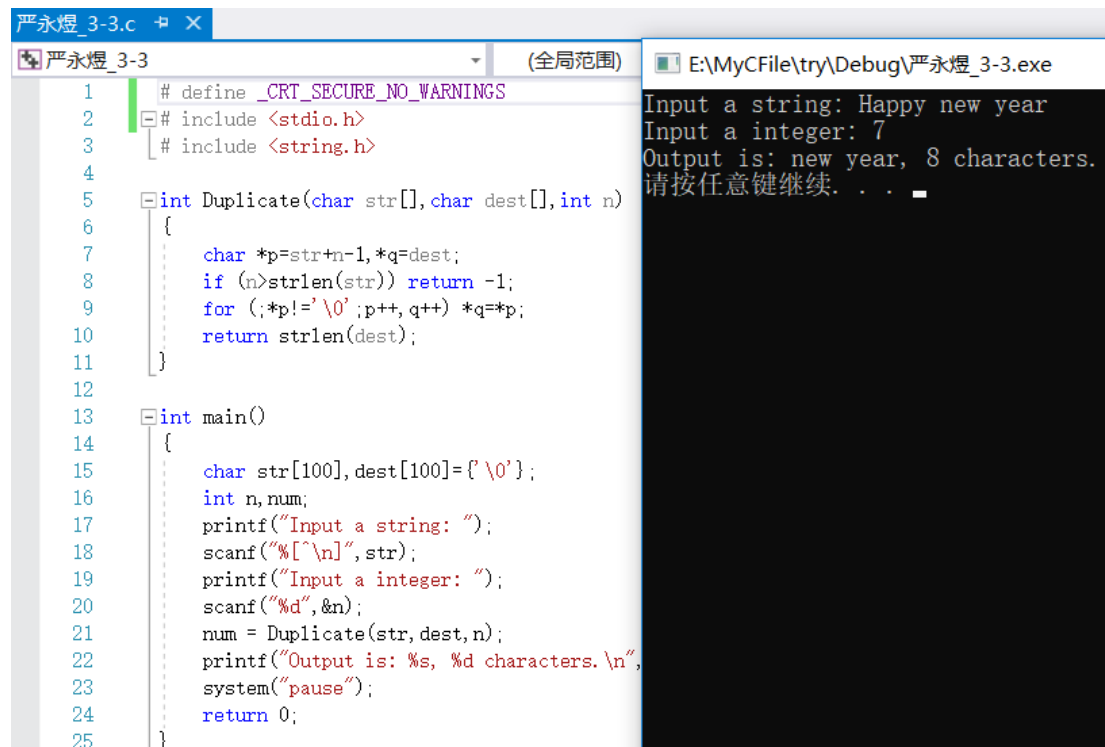
1  # define _CRT_SECURE_NO_WARNINGS
2  # include <stdio.h>
3
4  int search(int list[], int n, int x)
5  {
6      int i;
7      for (i=0;i<n;i++)
8      {
9          if (*(list+i)==x) return i;
10     }
11     return -1;
12 }
13
14 int main()
15 {
16     int list[10],n,x,i,result;
17     printf("Input n: ");
18     scanf("%d",&n);
19     printf("Input %d integers: ",n);
20     for (i=0;i<n;i++) scanf("%d",list+i);
21     printf("Input x: ");
22     scanf("%d",&x);
23     result = search(list,n,x);
24     if (result== -1) printf("Not found\n");
25     else printf("Index=%d\n",result);
26     system("pause");
27     return 0;
}
```

Input n: 3
Input 3 integers: 1 2 -6
Input x: 2
Index=1
请按任意键继续. . .

3-3

源程序：

```
# include <stdio.h>
# include <string.h>
int Duplicate(char str[],char dest[],int n)
{
    char *p=str+n-1,*q=dest;
    if (n>strlen(str)) return -1;
    for (;*p!='\0';p++,q++) *q=*p;
    return strlen(dest);
}
int main()
{
    char str[100],dest[100]={'\0'};
    int n,num;
    printf("Input a string: ");
    scanf("%[^\n]",str);
    printf("Input a integer: ");
    scanf("%d",&n);
    num = Duplicate(str,dest,n);
    printf("Output is: %s, %d characters.\n",dest,num);
    return 0;
}
```



```
严永煜_3-3.c 严永煜_3-3 (全局范围) E:\MyCFile\try\Debug\严永煜_3-3.exe
1 # define _CRT_SECURE_NO_WARNINGS
2 # include <stdio.h>
3 # include <string.h>
4
5 int Duplicate(char str[],char dest[],int n)
6 {
7     char *p=str+n-1,*q=dest;
8     if (n>strlen(str)) return -1;
9     for (;*p!='\0';p++,q++) *q=*p;
10    return strlen(dest);
11 }
12
13 int main()
14 {
15     char str[100],dest[100]={'\0'};
16     int n,num;
17     printf("Input a string: ");
18     scanf("%[^\n]",str);
19     printf("Input a integer: ");
20     scanf("%d",&n);
21     num = Duplicate(str,dest,n);
22     printf("Output is: %s, %d characters.\n",
23     system("pause");
24     return 0;
25 }
```

Input a string: Happy new year
Input a integer: 7
Output is: new year, 8 characters.
请按任意键继续. . .

3-4

源程序:

```
# include <stdio.h>
void average(int score[][4])
{
    int i,num,sum=0;
    printf("Please enter the class num: ");
    scanf("%d",&num);
    for (i=0;i<5;i++) sum += (*(score+i)+num-1);
    printf("The average score of class %d is: %.2f\n",num,sum/5.0);
}
void fail(int score[][4])
{
    int i,j,sum,num;
    printf("Students failed:\n");
    for (i=0;i<5;i++)
    {
        num = 0;
        sum = 0;
        for (j=0;j<4;j++)
        {
            sum += (*(score+i)+j);
            if (*(score+i)+j)<60) num+=1;
        }
        if (num > 1) printf("Num.%d score:%d %d %d %d average:%.2f\n",\
            i+1,*(score+i)+0,*(score+i)+1,*(score+i)+2,*(score+i)+3,sum/4.0);
    }
}
void passed(int score[][4])
{
    int i,j,sum,num;
    printf("Students passed:\n");
    for (i=0;i<5;i++)
    {
        sum = 0;
        num = 4;
        for (j=0;j<4;j++)
        {
            sum += (*(score+i)+j);
            if (*(score+i)+j)>85) num -= 1;
        }
        if (num==0||sum/4.0>90) printf("Num.%d score:%d %d %d %d average:%.2f\n",\
            i+1,*(score+i)+0,*(score+i)+1,*(score+i)+2,*(score+i)+3,sum/4.0);
    }
}
```

```

    }
}
int main()
{
    int i, score[5][4];
    printf("Please input the score.Each student in one line:\n");
    for (i=0;i<5;i++) scanf("%d%d%d%d",&score[i][0],&score[i][1],&score[i][2],&score[i][3]);
    average(score);
    fail(score);
    passed(score);
    system("pause");
    return 0;
}

```

```

1  # define _CRT_SECURE_NO_WARNINGS
2  # include <stdio.h>
3
4  void average(int score[][4])
5  {
6      int i,num,sum=0;
7      printf("Please enter the class num: ");
8      scanf("%d",&num);
9      for (i=0;i<5;i++) sum += *(score+i)+num;
10     printf("The average score of class %d is: ",num);
11 }
12
13 void fail(int score[][4])
14 {
15     int i,j,sum,num;
16     printf("Students failed:\n");
17     for (i=0;i<5;i++)
18     {
19         num = 0;
20         sum = 0;
21         for (j=0;j<4;j++)
22         {
23             sum += *(score+i)+j;
24             if (*(score+i)+j<60) num+=1;
25         }
26         if (num > 1) printf("Num. %d score:%d",i+1,sum);
27     }

```

Please input the score.Each student in one line:
 99 98 99 87
 89 87 87 89
 54 56 97 98
 54 53 52 51
 77 77 77 77
 Please enter the class num: 4
 The average score of class 4 is: 80.40
 Students failed:
 Num. 3 score:54 56 97 98 average:76.25
 Num. 4 score:54 53 52 51 average:52.50
 Students passed:
 Num. 1 score:99 98 99 87 average:95.75
 Num. 2 score:89 87 87 89 average:88.00
 请按任意键继续. . .