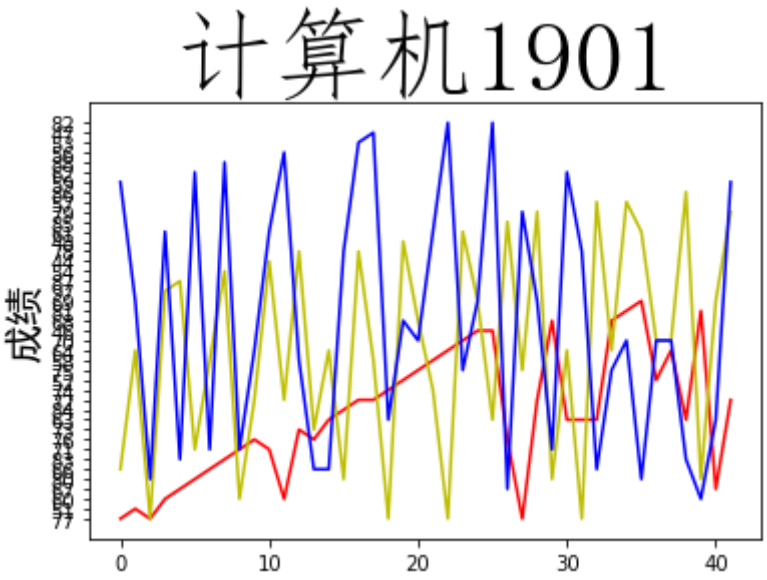
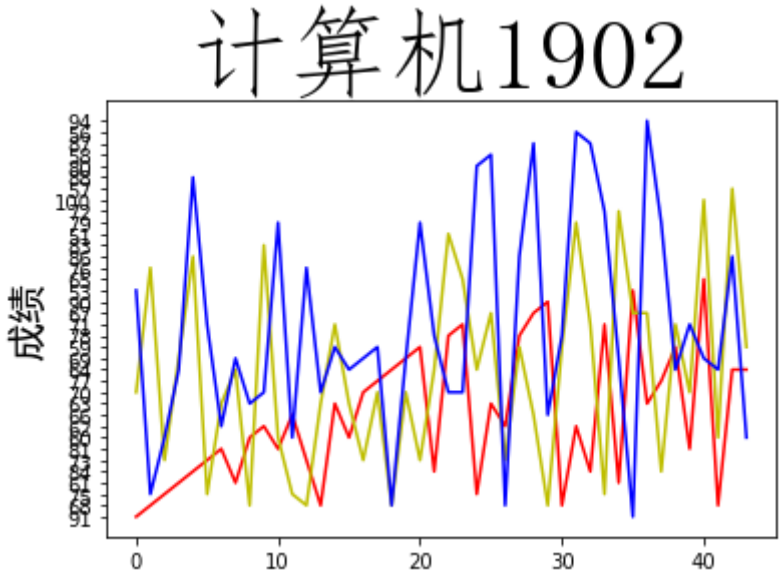
In [9]:
```
import numpy as np
import csv
import matplotlib.pyplot as plt
import matplotlib
```

In [21]:
```
for i in range(1, 9):# 利用循环读取8个班的文件
    filename = "计算机190" + str(i) + ".csv"#创建以各班级为csv的文件名
    with open(filename,"r") as f:
        data = np.loadtxt(f,str,delimiter = ',')
    color = ['r','y','b']  #用红黄蓝三种颜色作图
    class_name = "计算机190" + str(i)
    for j in range(3):#循环画图，三个科目的折线形式，作在一张图上
        plt.plot(data[1:,j+3], color = color[j])
    plt.ylabel('成绩',fontproperties = 'SimHei',fontsize = 20)#纵坐标编写成绩字体及大
    plt.title(class_name,fontproperties = 'FangSong',fontsize = 50)#图像分别命名字体大
    plt.show()
for ii in range(3): #循环成绩
    score_name = "score" + str(ii)
    score_name = []
    for n in range(1, 9):
        for jj in data[1:]:
            score_name.append(int(jj[3+ii]))#读取每一个班的成绩，加进列表
    print(score_name)
    color = ['r','y','b']##用红黄蓝三种颜色作图
    plt.plot(score_name, color = color[ii])#画出折线图
plt.ylabel('成绩',fontproperties = 'SimHei',fontsize = 20)#纵坐标编写成绩字体及大小
plt.title("8个班整体的成绩分布折线图",fontproperties = 'SimHei',fontsize = 25)#图像命
plt.show()
```




计算机1902
成绩
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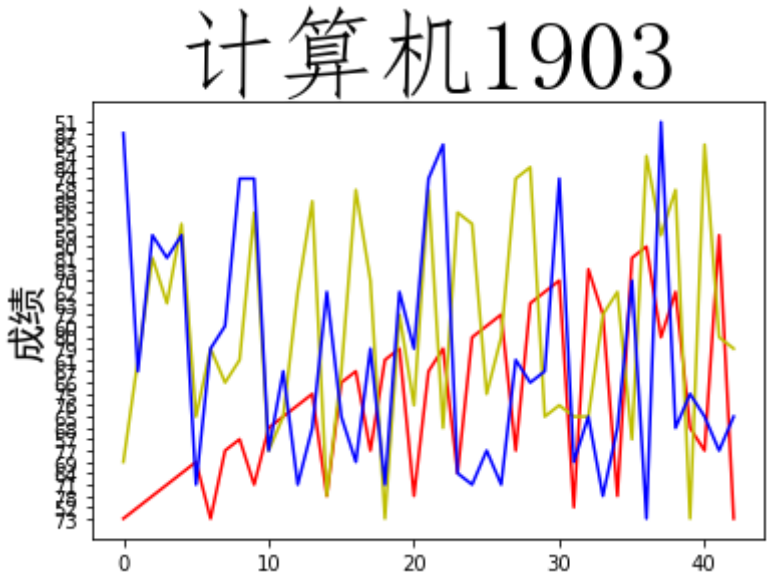
10
20
30
40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成绩
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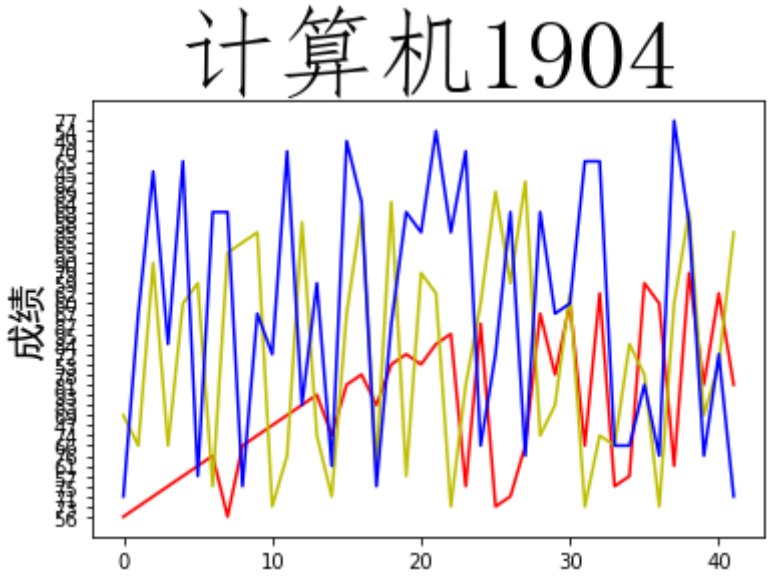
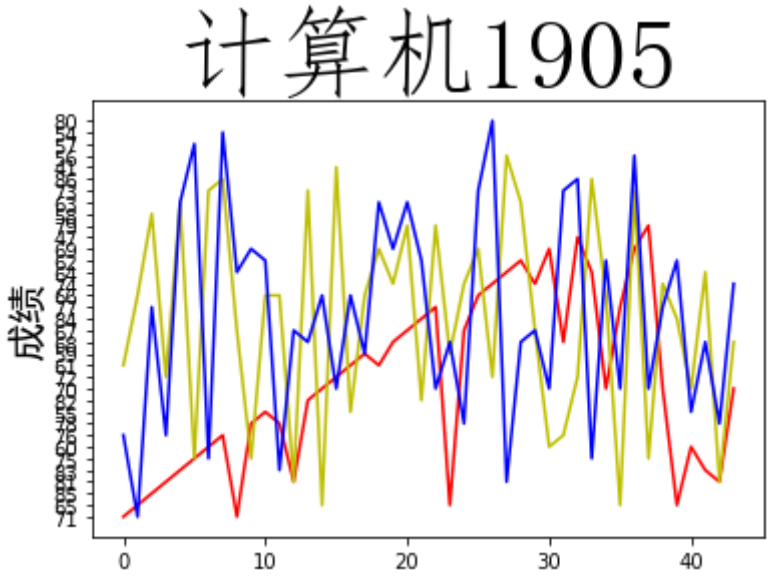
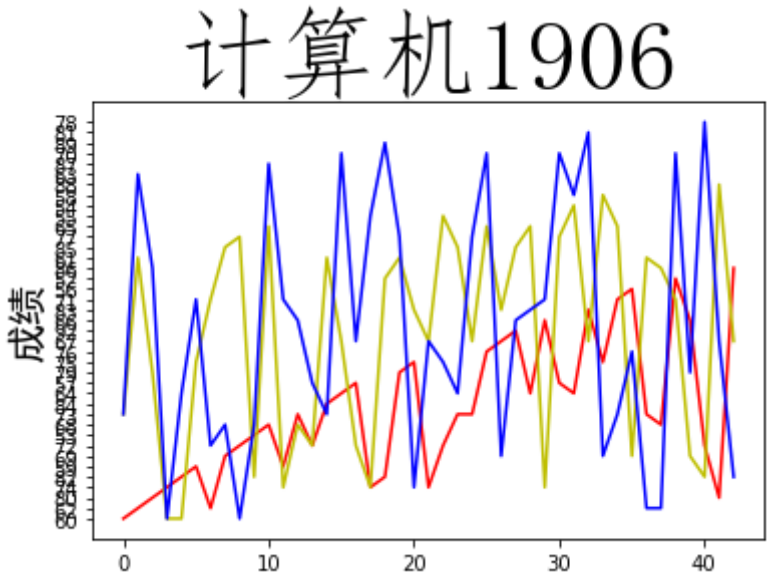
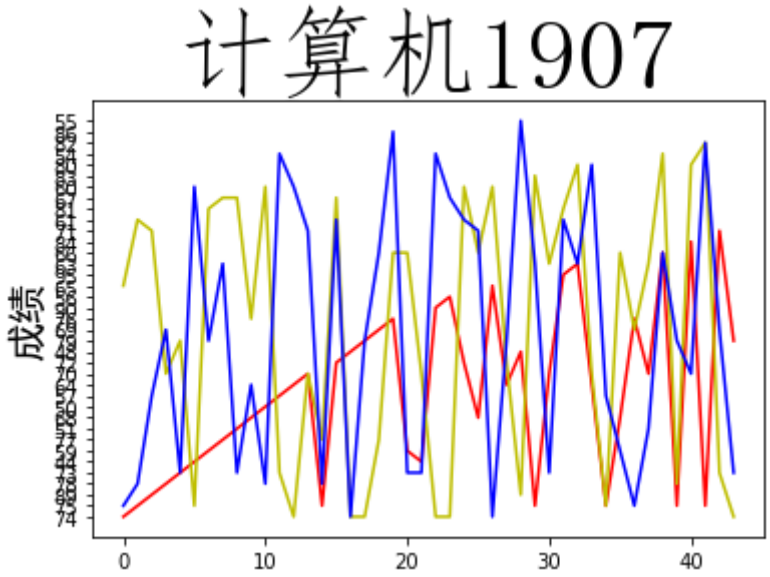
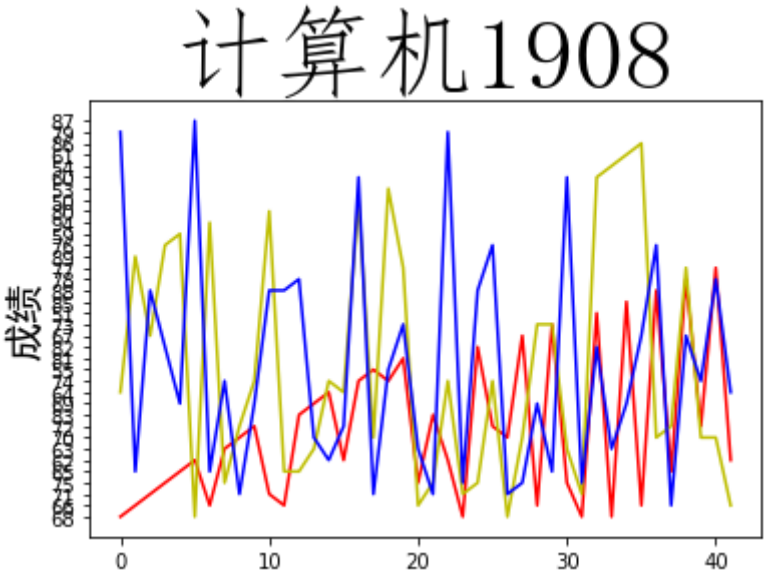
10
20
30
40


计算机1904
成绩
0
10
20
30
40


计算机1905
成绩
0
10
20
30
40


计算机1906
成绩
0
10
20
30
40


计算机1907
成绩
0
10
20
30
40



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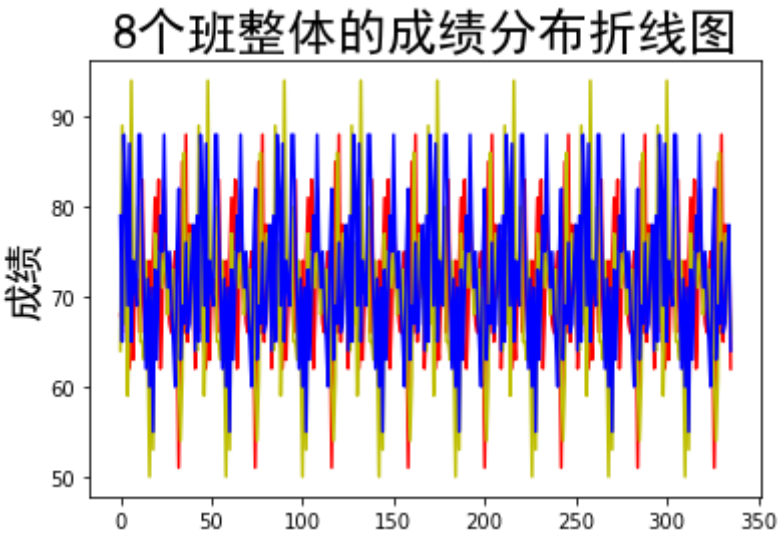
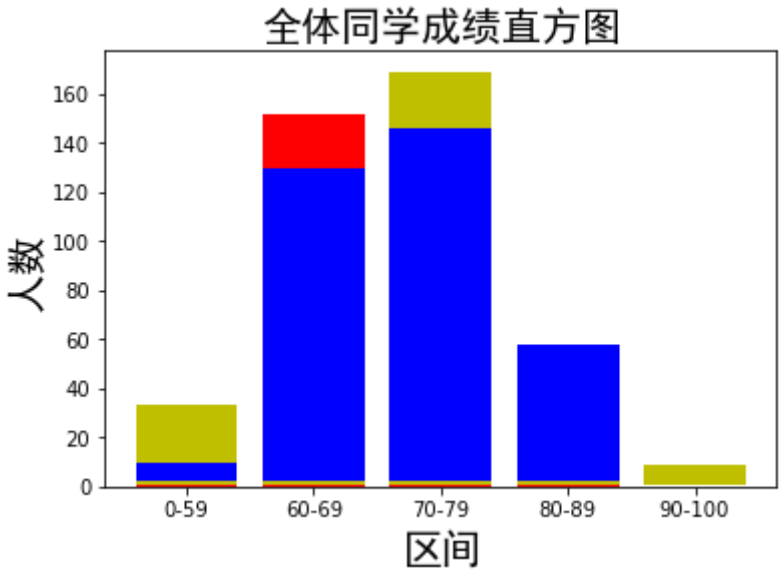


In [ ]:

In [84]:
```
for iii in range(3):#循环三列成绩
    score_name = "score" + str(iii)
    score_name = []
    for n in range(1, 9):
        for jjj in data[1:]:
            score_name.append(int(jjj[3+iii])) ##读取每一个班的成绩，加进列表
    gk = 0;jg = 0;lh = 0;bc = 0;yx = 0#所有人数一开始均为0
    for i in score_name:#根据成绩列表，依次判断是优秀，不错，良好，挂科
        if i < 60:
            gk += 1
        elif i>= 60 and i < 70:
            jg += 1
        elif i>= 70 and i < 80:
            lh += 1
        elif i>= 80 and i < 90:
            bc += 1
        elif i>= 90 and i <= 100:
            yx += 1
    x = ["0-59", "60-69", "70-79", "80-89", "90-100"] #设置图的横纵坐标
    y = [gk,jg,lh,bc,yx]#纵坐标为优秀，不错，良好，挂科五个区间的人数
    color = ['r','y','b']  #用红黄蓝三种颜色作图
    plt.bar(x, y, alpha=1, color = color[iii],bottom = np.array([iii]))#设置图中矩形
plt.title("全体同学成绩直方图",fontproperties = 'SimHei',fontsize = 20) #编写字体及大
plt.ylabel("人数",fontproperties = 'SimHei',fontsize = 20)
plt.xlabel("区间",fontproperties = 'SimHei',fontsize = 20)
plt.show()
```


全体同学成绩直方图
人数
区间
0-59
60-69
70-79
80-89
90-100
0
20
40
60
80
100
120
140
160

In [ ]:

In [ ]:

In [ ]: