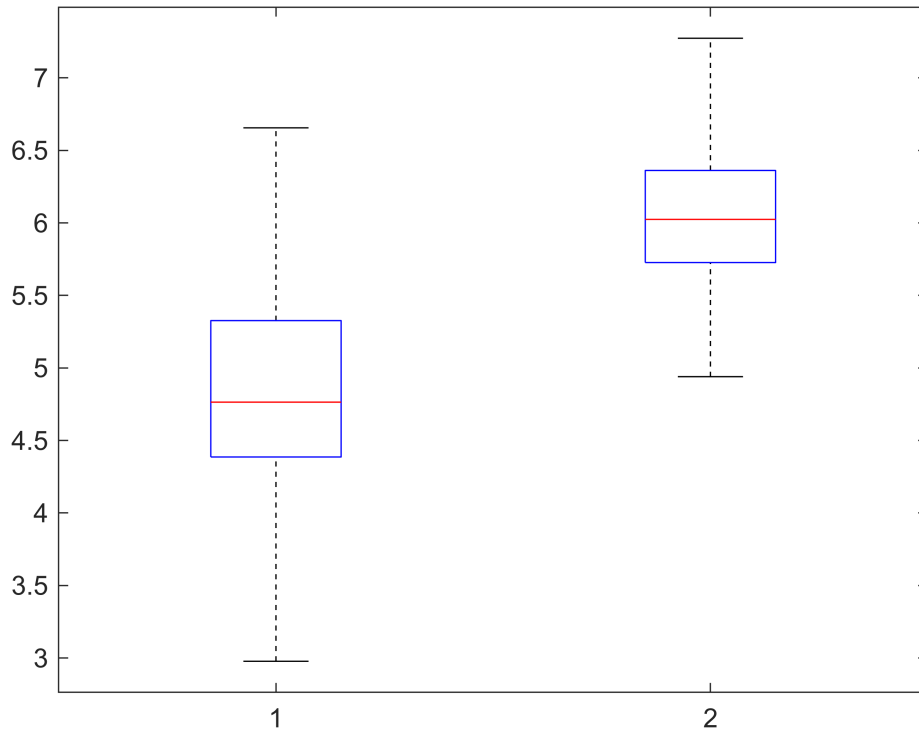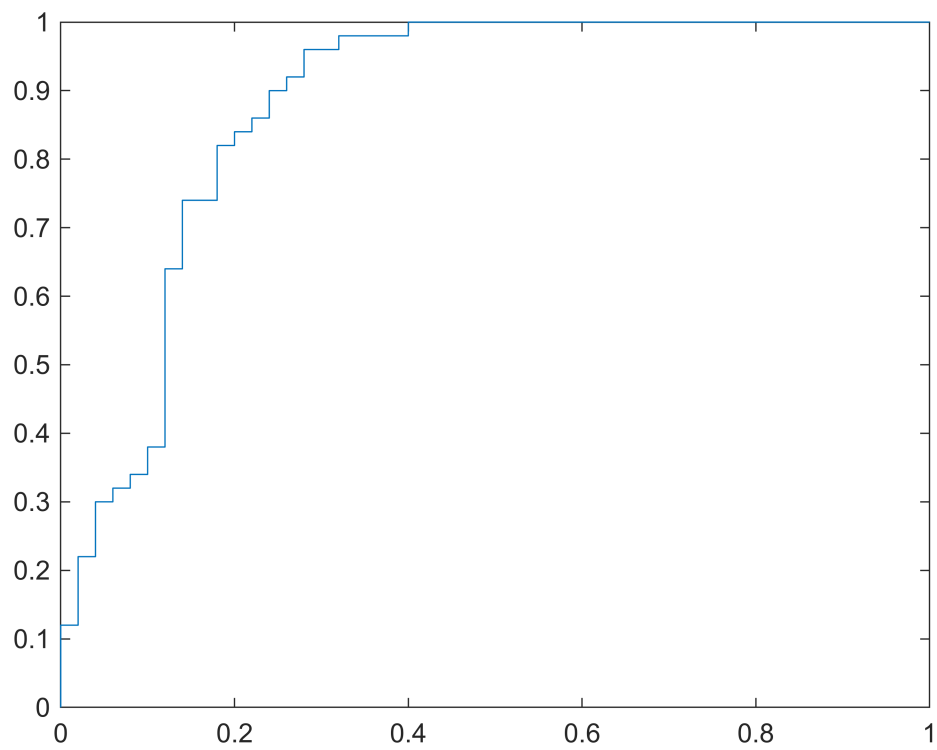```
rng(2023)
d1=5+randn(50,1);
d2=6+.5*randn(50,1);
%a
boxplot([d1,d2])
```



```
%b
clas = [zeros(1, length(d1)), ones(1, length(d2))]
```

```
clas = 1×100
     0     0     0     0     0     0     0     0     0     0     0     0     0 ⋯
```

```
[tpr,fpr,cuts] = roc(clas,[d1',d2']);
plot(fpr,tpr)
```

```
dfpr=(fpr(2:end)-fpr(1:(end-1)))/2;
atpr=(tpr(2:end)+tpr(1:(end-1)))/2;
auc=sum(dfpr.*atpr)
```

auc =
      0.4398