MATLAB CODE for continuous distribution

dyes=[25.2, 19.3, 18.5, 21.7, 20.1, 24.3, 22.8, 23.1, 19.8]

dno=[27.3, 30.1, 17.4, 29.5, 15.1]

priory=length(dyes)/(length(dyes)+length(dno))

priorno=length(dno)/(length(dyes)+length(dno))

meany=sum(dyes)/length(dyes)

meanno=sum(dno)/length(dno)

stdy=sqrt((sum((dyes-meany).^2))/length(dyes))

stdno=sqrt((sum((dno-meanno).^2))/length(dno))

x=17.4;

Pyes=(1/(stdy\*sqrt(2\*3.14)))\*exp(-(((x-meany)^2)/(2\*(stdy^2))))

Pno=(1/(stdno\*sqrt(2\*3.14)))\*exp(-(((x-meanno)^2)/(2\*(stdno^2))))

if(Pyes>Pno)

disp('for a temperture' )

disp(x)

disp('we can pay outside')

else

disp('for a temperture' )

disp(x)

disp('we cannot play outside')

end

OUTPUT:

Pyes = 0.0289

Pno = 0.0373

for a temperture

17.4000

we cannot play outside