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In [3]: from math import *
m=0
a=2.0
s=1.0
f=1/(sqrt(2*pi)*a)*exp(-0.5*((s-m)/a)**2)
print(f)
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```

0.17603266338214976

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In [5]: from math import *
y1=1
deg=float(input("Enter the angle="))
g=9.81
u=float(input("Enter the initial velocity="))
x=float(input("Enter the value of x="))

rad=(pi/180)*deg
u=u/3.6
y=(x*tan(rad))+((g*(x**2))/(2*(u**2)*(cos(rad)**2)))+y1
print("The trajectory of the ball is=", y)
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Enter the angle=45  
 Enter the initial velocity=10  
 Enter the value of x=2.5  
 The trajectory of the ball is= 11.446099999999998

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In [4]: from math import *
dc=0.2
ad=1.2
a=pi*0.11**2
m=0.43
g=9.81
Fg=m*g
sc=1000.0/3600
v=120*sc
fd=0.5*dc*ad*a*v**2
print("For hard kick velocity=", v, "the gravitational force is", Fg, "and the drag is", fd)
v1=10*sc
fd1=0.5*dc*ad*a*v1**2
print("For soft kick velocity=", v1, "the gravitational force is", Fg, "and the drag is", fd1)
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For hard kick velocity= 33.333333333333336 the gravitational force is 4.2183 and the drag is 5.068436147791534  
 For soft kick velocity= 2.7777777777777777 the gravitational force is 4.2183 and the drag is 0.03519747324855231