34.Write a Python program to draw a scatter plot using random distributions to

generate balls of different sizes.

Program:

import math

import random

import matplotlib.pyplot as plt

# create random data

no\_of\_balls = 25

x = [random.triangular() for i in range(no\_of\_balls)]

y = [random.gauss(0.5, 0.25) for i in range(no\_of\_balls)]

colors = [random.randint(1, 4) for i in range(no\_of\_balls)]

areas = [math.pi \* random.randint(5, 15)\*\*2 for i in range(no\_of\_balls)]

# draw the plot

plt.figure()

plt.scatter(x, y, s=areas, c=colors, alpha=0.85)

plt.axis([0.0, 1.0, 0.0, 1.0])

plt.xlabel("X")

plt.ylabel("Y")

plt.show()

Output:

