```
import turtle as t
import random, sys

BASEPYONLY = True

t.Screen()


# draw axis  -- can wrap this into a function
t.color('black')
t.penup(); t.goto(-400, 0); t.pendown(), t.forward(800), t.stamp()
t.penup(); t.seth(90); t.goto(0, -400); t.pendown(), t.forward(800), t.stamp()


# common turtle attributes
t.resizemode('user')
t.turtlesize(0.75,0.75,1)
t.shape('circle')

# common variables
nobs = 10
scale = 400


# without using list for Q1
t.color('blue','green')  #pen color, fill color
    _    range(nobs):
    t.penup(); t.goto( random.uniform(0.01, 1)*scale, random.uniform(0.01, 1)*scale );
t.stamp()


# use list for Q2
x = [ - random.uniform(0.01, 1)*scale     _    range(nobs)]
y = [   random.uniform(0.01, 1)*scale     _    range(nobs)]


t.color('blue','')  #pen color, fill color
    _    range(nobs):
    t.penup(); t.goto(x[_], y[_]); t.stamp()



# use numpy for Q3 and Q4
   BASEPYONLY: sys.exit(0)

import numpy as np
Q3 = - np.random.default_rng().uniform(0.01, 1, size = (nobs,2))*scale
Q4 =   np.random.default_rng().uniform(0.01, 1, size = (nobs,2)).dot([[1,0],[0,-1]])*scale

    _    range(nobs):
    t.color('red','')  #pen color, fill color
    t.penup(); t.goto(Q3[_,0], Q3[_,1]); t.stamp()
    t.color('red','orange')  #pen color, fill color
    t.penup(); t.goto(Q4[_,0], Q4[_,1]); t.stamp()


t.done()   # Must be the last statement in a turtle graphics program
```