```
# -*- coding: utf-8 -*-
"""
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"""

def mu(n,p):
    return n * p

def sigma(n,p):
    return math.sqrt(n * p * (1-p))

import random
j = 0
E = 0
trials = 10000 # of repetitions
N = 500 # given sample size
x = 340 # success
p = 0.659 # probability of successes

trial = [0]
trial = trial * N # creates array size of trials, setting values of each index to 0

for k in range (trials):
    for i in range(N):
        r = random.uniform(0,1)
        if r<p:
            trial[i] = 1 #success else:
            trial[i] = 0 # failure
    s = sum(trial) # adds up total successes
    if s == x:
        j = j + 1
    prob = j/trials
    print('The probability is', prob)
```