

# Untitled

September 24, 2019

the number converge to 0 if everyone is rational, but I guess not everyone is rational so, I choose which means the total

```
In [5]: import matplotlib.pyplot as plt
import numpy as np
from scipy.stats import truncnorm
lower, upper = 0, 100
order = 5
fig = plt.figure(figsize=(20, 18))
sample = [np.random.randint(0, 100) for i in range(70)]
ax = fig.add_subplot(order, order, 1)
ax.hist(sample)
mu = np.mean(sample)/2
sigma = np.sqrt(np.var(sample))
ax.plot(np.ones(100)*mu, np.arange(0, 10, 0.1))
for i in range(order**2-1):
    X = truncnorm((lower - mu) / sigma, (upper - mu) / sigma, loc=mu, scale=sigma)
    sample = X.rvs(70)
    ax = fig.add_subplot(order, order, i+2)
    ax.hist(sample)
    mu = np.mean(sample)/2
    sigma = sigma/2
    ax.plot(np.ones(100)*mu, np.arange(0, 10, 0.1))
plt.show()
plt.close(fig)
```

