How to generate an array of random numbers and find mean,variance and standard deviation

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Since i'm a new student, I did not have the chance to learn how this latex thing worked, and my first homework is this one. We use python to do it.

Command Line Stuff

To get the mean, variance and standard deviation, we need to get an array of random numbers first

```
This is how you get a set of random numbers.

import random
for i in range(20):
    print random,uniform(0.0,100.0)

And this is how you get a set of random numbers using []

import random
a=[ ]
for i in range(20):
    a=a+[random.uniform(0.0,100.0)]
```

Representing Python Code in Your Assignment

I get the var in two ways, both could work

```
import random
a=[ ]
for i in range(20):
    a=a+[random.uniform(0.0,100.0)]

s=0.0
for i in range(20):
    s=s+a[i]
```

```
avg=s/20

s1=0.0
for i in range(len(a)):
    s1=s1+a[i]*a[i]

avgS=s1/len(a)

var1=avgS-avg*avg


s2=0.0
for i in range(len(a)):
    s2=s2+(a[i]-avg)*(a[i]-avg)

    var2=s2/len(a)

stddev=var2**(0.5)

print stddev
```

```
27.1739799648
```

This indicates the output of your program.