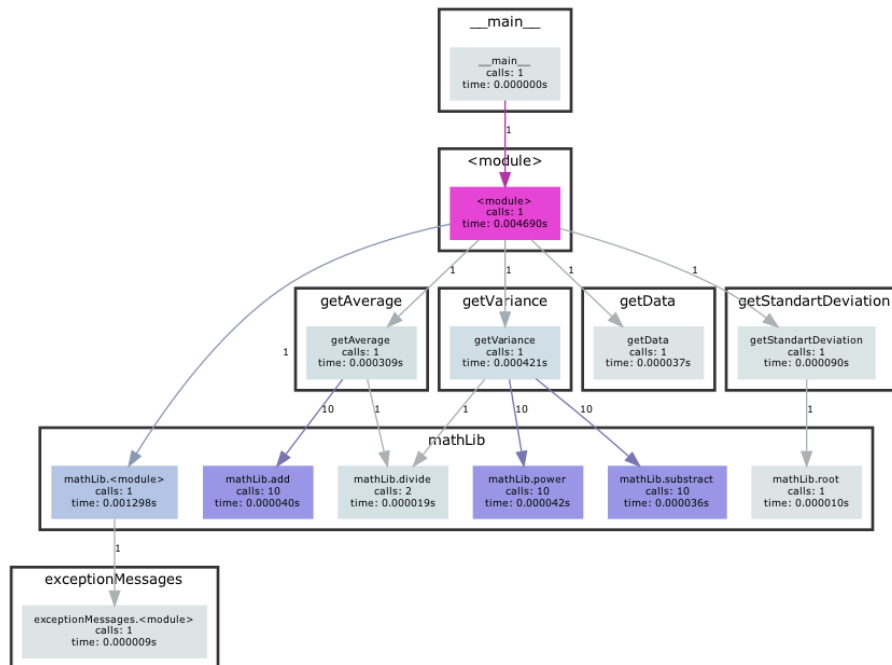


# Profiling

Run as: python ./profiling.py < data10.txt

Output: 276.7628

Graph:

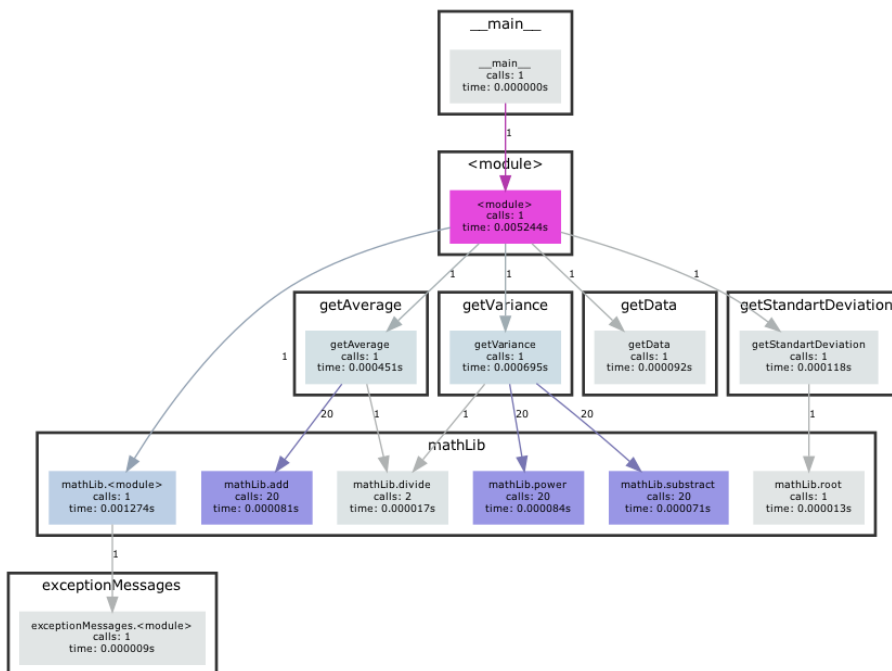


Generated by Python Call Graph v1.0.1  
<http://pycallgraph.slowchop.com>

Run as: python ./profiling.py < data100.txt

Output: 3.20284418863e+19

Graph:

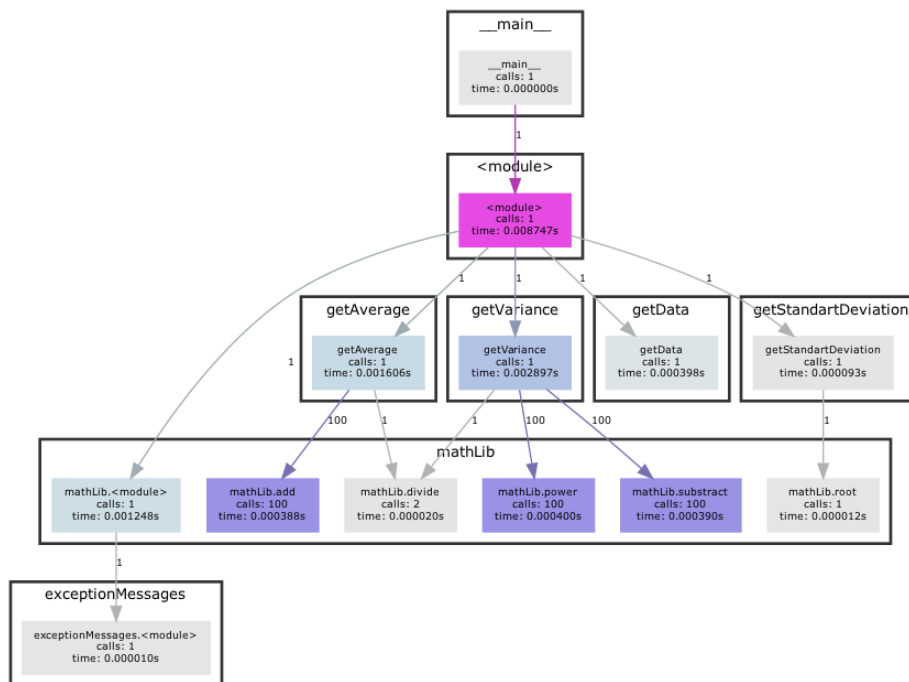


Generated by Python Call Graph v1.0.1  
<http://pycallgraph.slowchop.com>

**Run as:** python ./profiling.py < data1000.txt

**Output:** 2.76993218225e+49

**Graph:**



Generated by Python Call Graph v1.0.1  
<http://pycallgraph.slowchop.com>

## Conclusion:

As we can see the most time spent are in power, subtract and add functions because it was called most times. But if we will calculate it for one call the most time spent will be in divide function. Divide is slow because it is essentially more complex than a multiply. Optimization will be if we use inverse multiply instead of dividing.