HW1 Part C

Experiment 1:

Top 5 sites selected from top 25:

```
top5=
['Google.com','Youtube.com','Facebook.com','Baidu.com','Wikipedia.org']
```

Code for getting the average response times from 'mydig':

```
for i in top5:
    avg=0
    for j in range(10):
        avg+=mydig.get_rtime(i)
    my_dig+=[avg/10]
```

Average time for mydig:

```
my_dig = [0.04775457382202149, 0.04638326168060303, 0.034858107566833496,
0.2491368293762207, 0.06879801750183105]
```

Experiment 2:

The average time taken for chosen websites by local DNS resolver:

```
local=[0.008045914151035564, 0.00642643599261618, 0.006158686224934989,
0.008289687394022069, 0.007925314020347737]
```

Experiment 3:

The average time taken for chosen websites by google's DNS resolver r (8.8.8.8):

```
google=[0.029517870484107138, 0.029732647200132453, 0.0026390747610411484,
0.0014373528540509023, 0.024169884640738465]
```

Observation:

Fig1 compares the DNS resolution time of the 3 experiments performed. We can observe that local DNS gives the best results. This is because of the proximity and caching of stony brook University's resolver (which was used for local resolution). Google's DNS gave the next best result. It did not beat the local DNS resolution time as it is located further away from us. Mydig takes longer than local DNS (around 30ms more) and googles DNS resolver (approximately 20 ms).
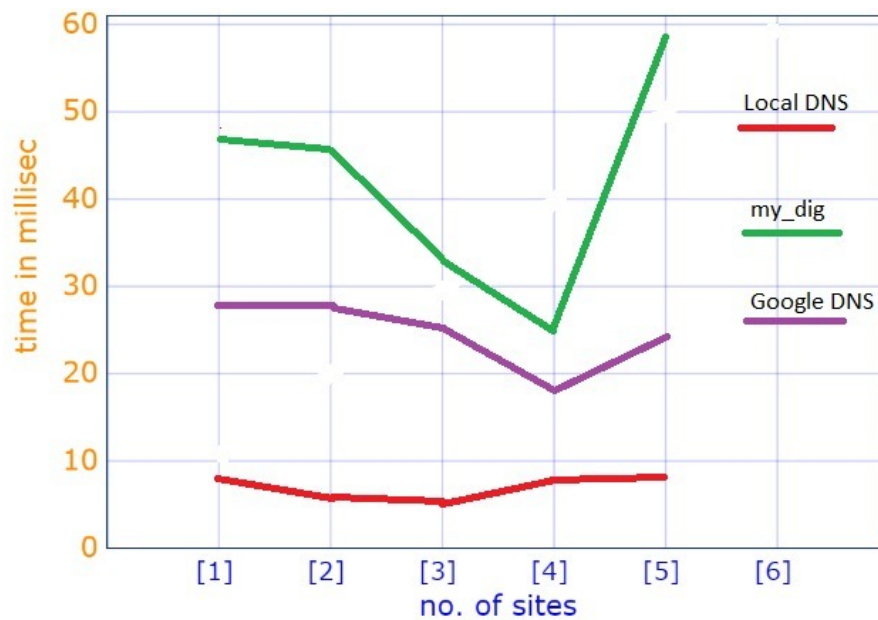

FIG 1. DNS comparison.