# Sorting

Counting steps in another algorithm

# Requirements

Create file in python with a **comment** containing the academic honesty pledge as shown below. Add another, separate comment to the file containing your name

- Write python code that generates datapoints as described. There needs to be at least **200** different points for each line. Use sizes like 10000
- Attach your python source in using the dropbox link in cobra learning.
- **Attach the graph you created**

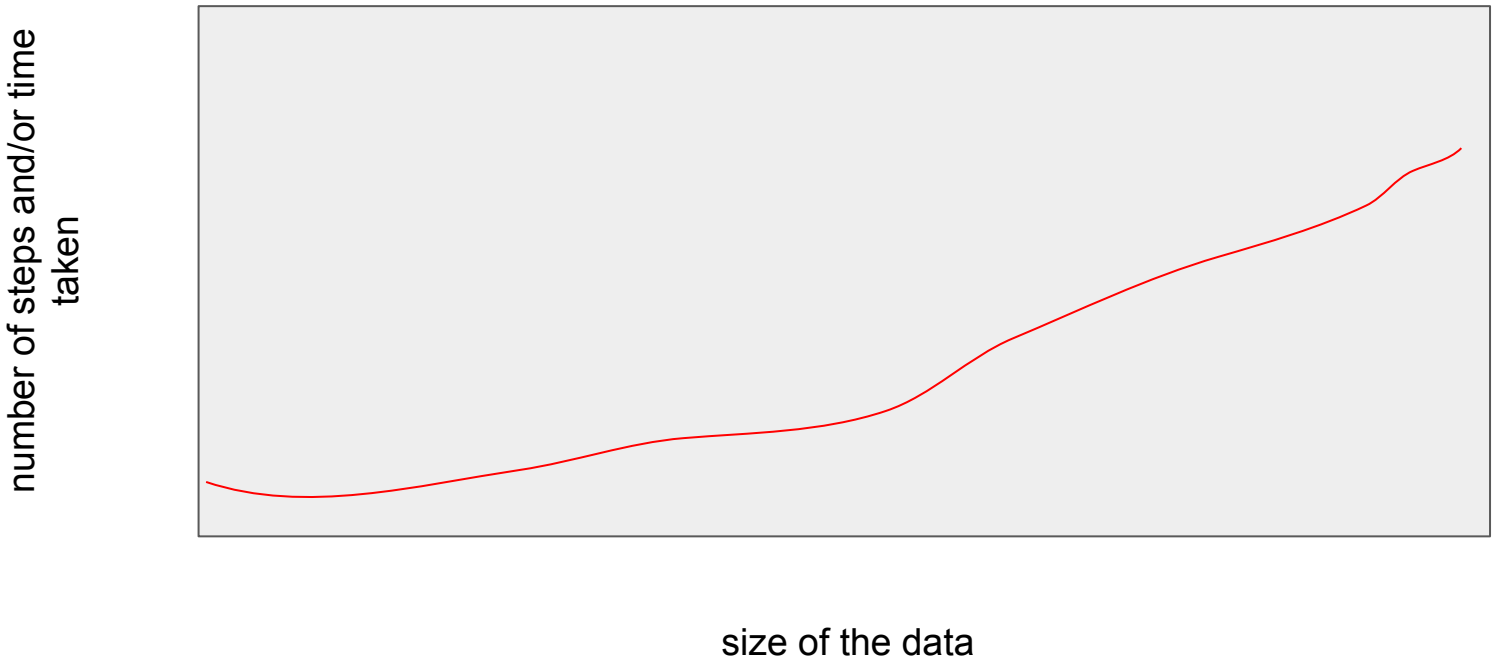
```
# I honor Parkland's core values by affirming that I have
# followed all academic integrity guidelines for this work.

# your name
```

# Data generation requirements

- You must use the **QUICK sort** as from the class text.
- You need to generate a line graph:
- You should count the array accesses carefully.

# Output sample



# csv files can be read directly into excel

10, 123123
13, 243952
16, 372614

# How to count the number of steps recursively

quicksort needs to return the count.

In quicksort:

- when the list is empty, return 0
- set count to zero
- the count is the sum of
  - the return value from the left
  - the return value from the right
  - the current count
- return the new count