

## CSC148 Winter 2016, Quiz #9

Given (first) name:

Family (last) name:

CDF userid:

Read the measured run times (in seconds) for `mystery_sort` below, and denote the number of items by  $n$ . Is the running time closer to being proportion to  $n \times \lg n$  or to the square of  $n$ ? Explain your answer.

```
mystery_sort 100 items in 0.000973
mystery_sort 200 items in 0.003505
mystery_sort 300 items in 0.008346
mystery_sort 400 items in 0.015789
mystery_sort 500 items in 0.025820
mystery_sort 600 items in 0.037877
```