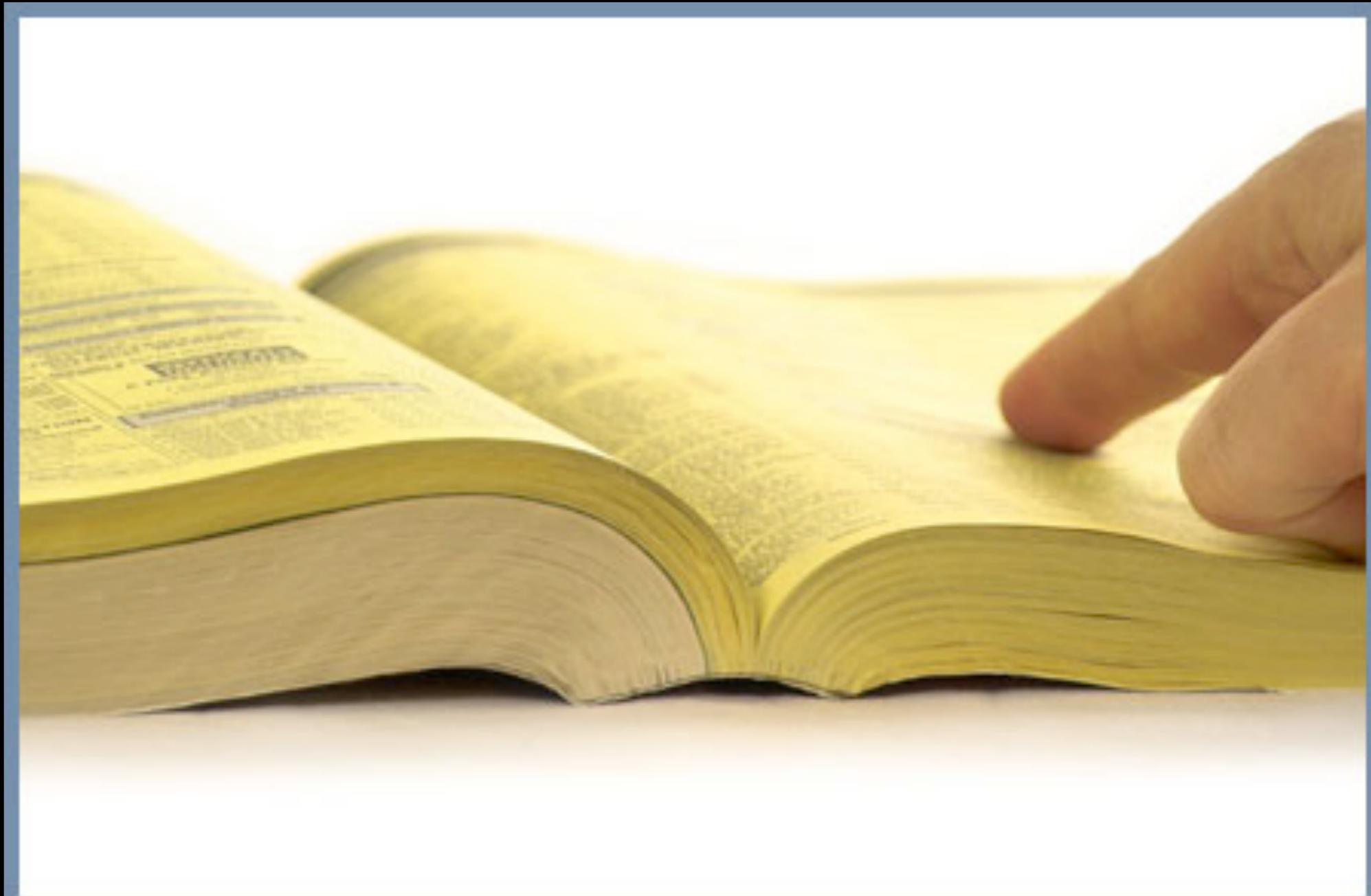


This is CS50



# an algorithm

1. stand up and think of the number 1
2. pair off with someone standing, add your numbers together, and adopt the sum as your new number
3. one of you should sit down; the other should go back to step 2

# another algorithm

1. stand up if in orchestra section
2. pair off with someone standing; stay standing if you're taller, sit down if you're shorter; break tie randomly
3. if still standing, go to step 2

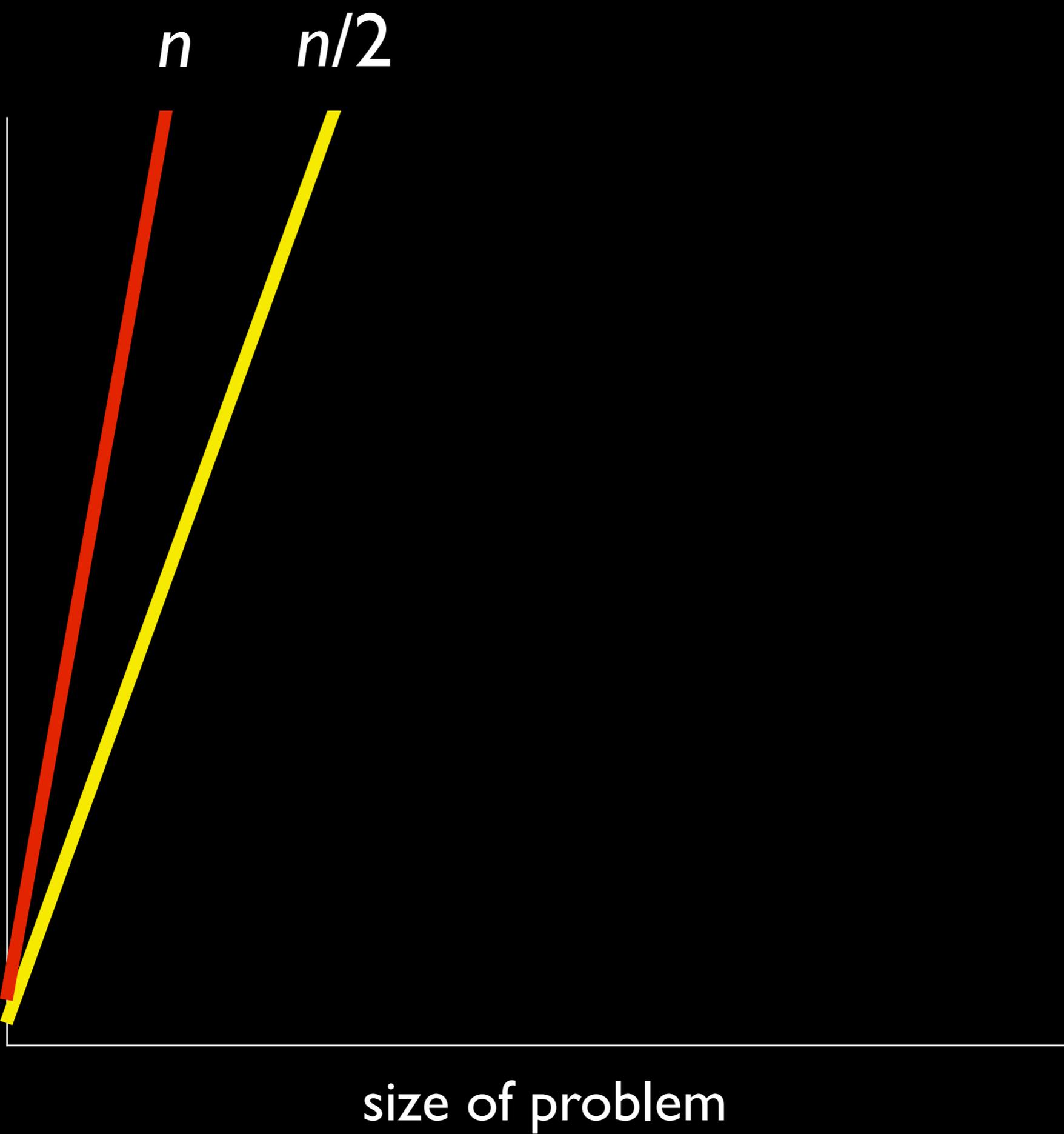
time to solve



$n$

size of problem

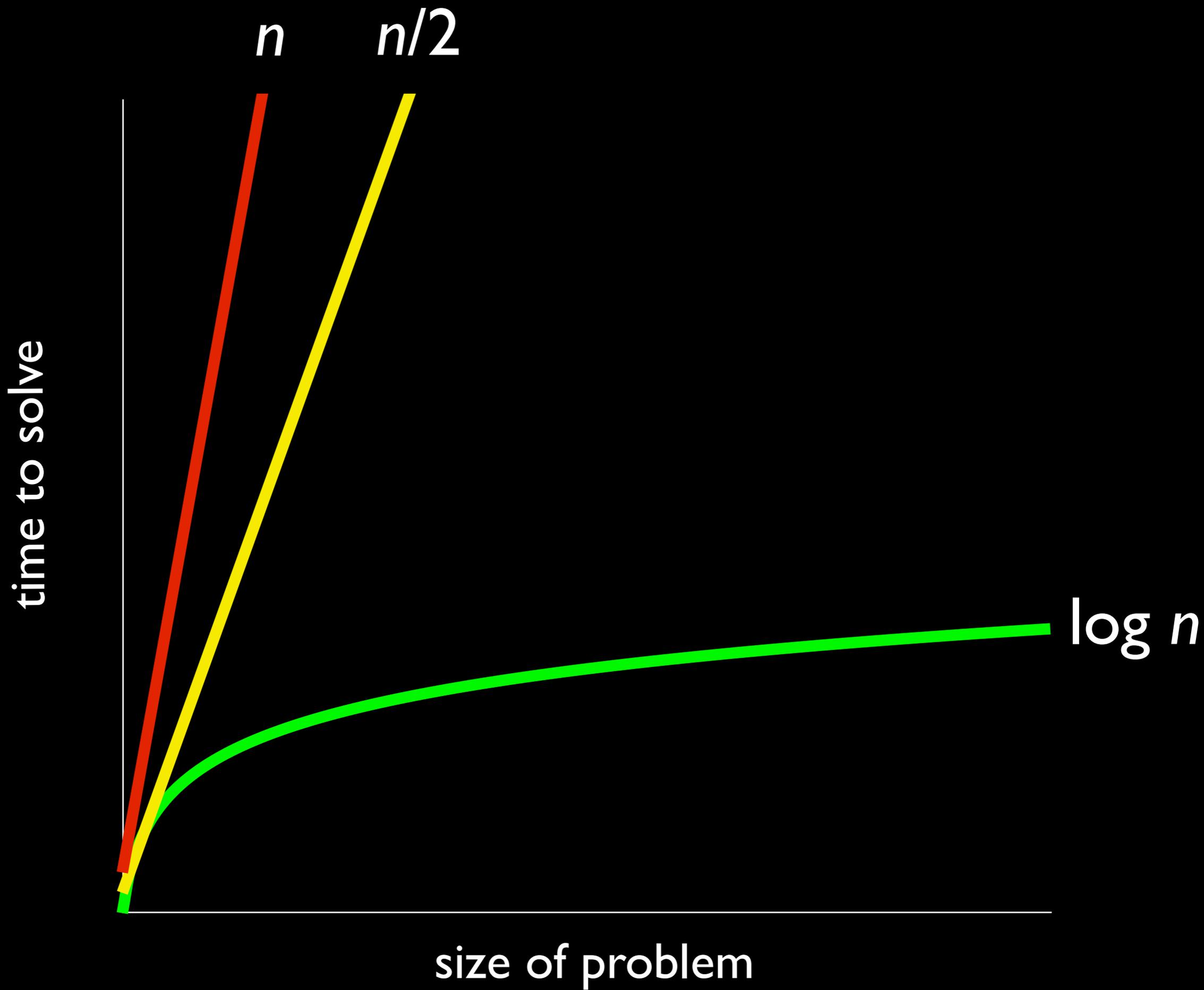
time to solve

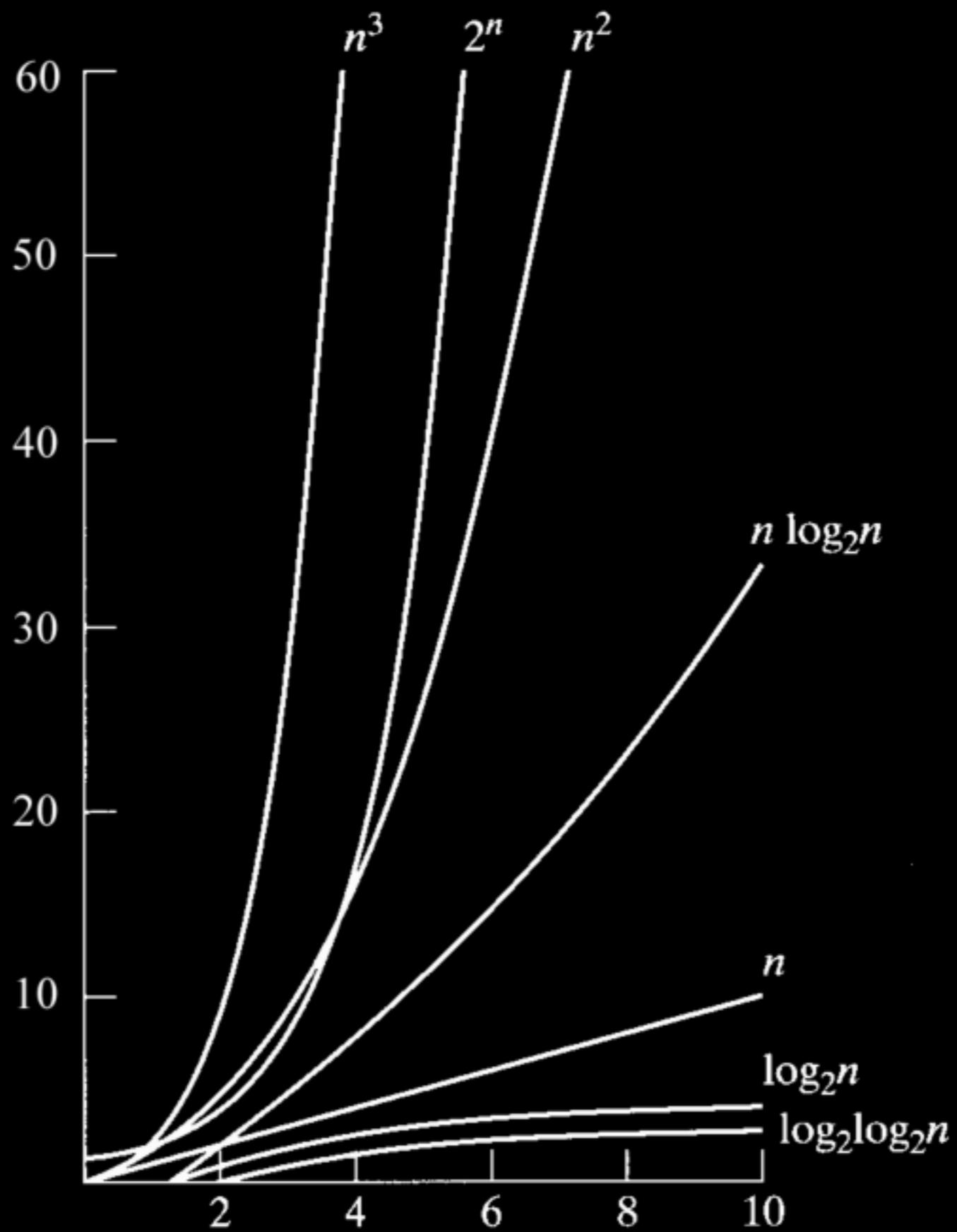


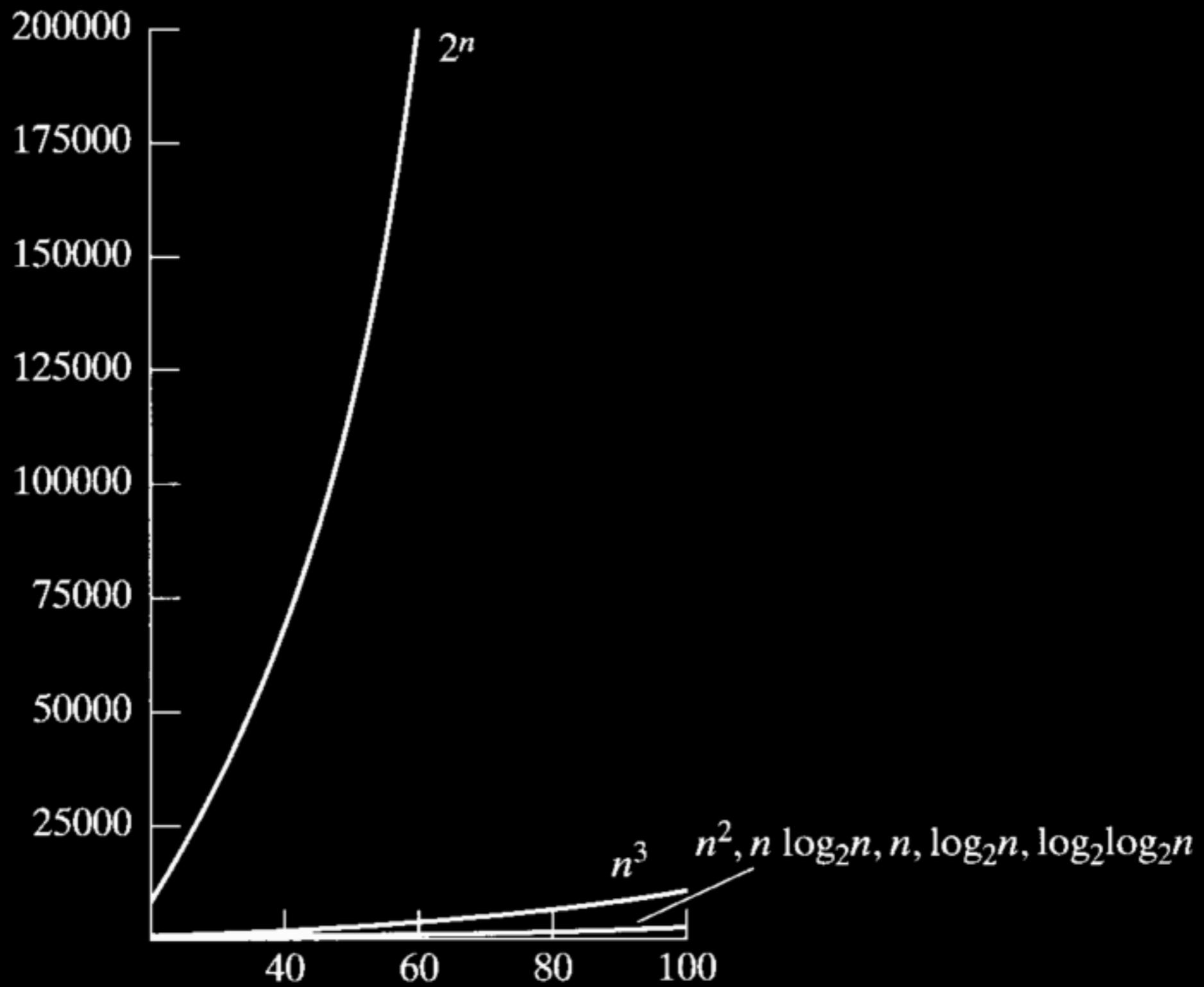
$n$

$n/2$

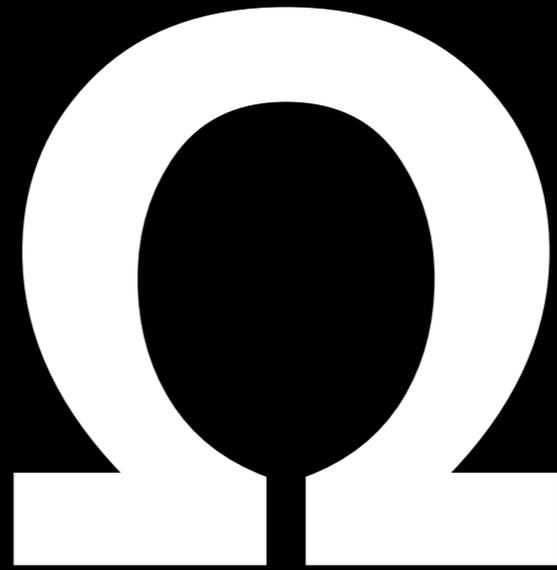
size of problem



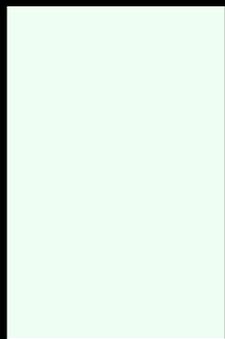
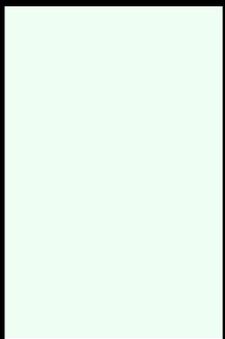
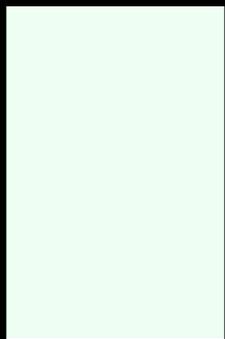
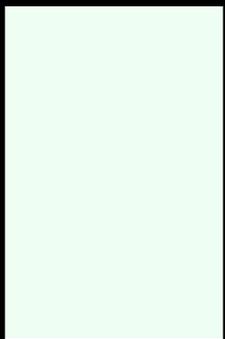
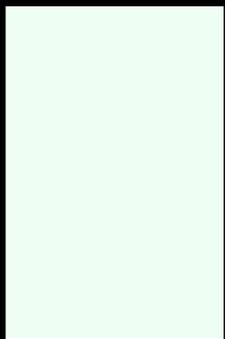
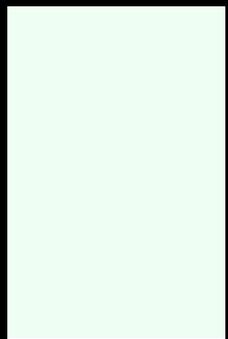




*O*







4

2

6

8

1

3

7

5

bubble sort

selection sort

to be continued...