

Topic V1D

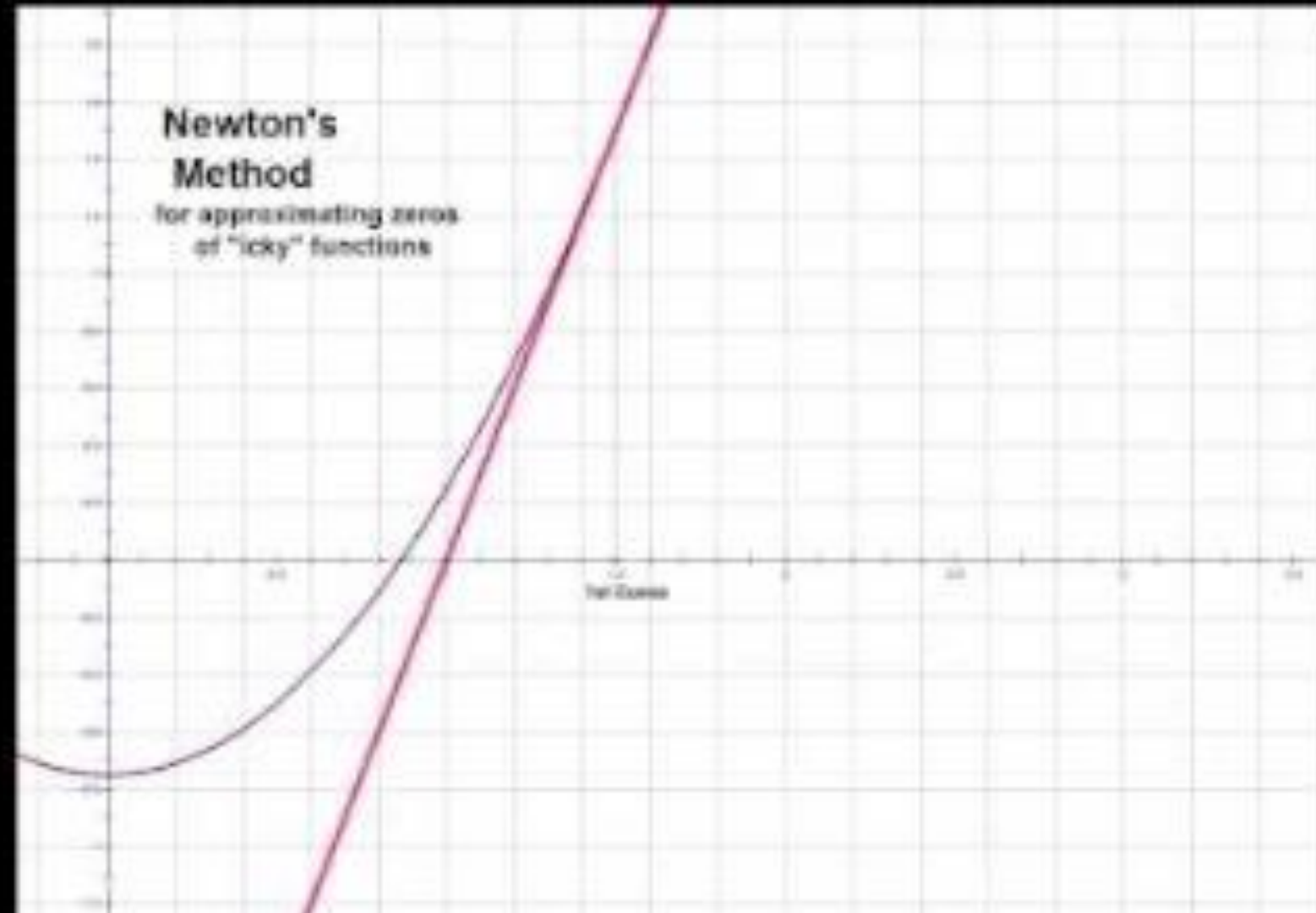
Blackboard Architecture

Readings pgs. 121-124 (Section 2.11)

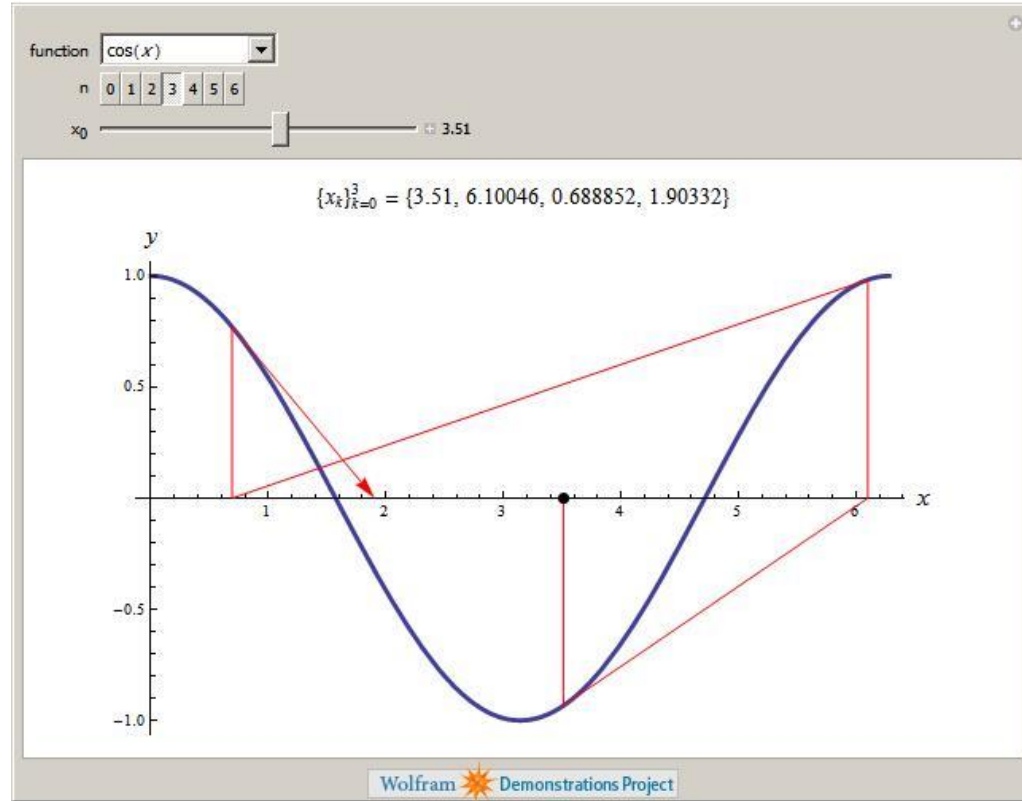
Sample Problem:
find the minimum of a function

Newton's Method

for approximating zeros
of "icky" functions

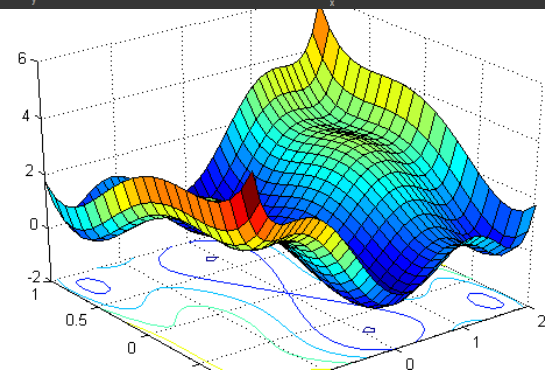
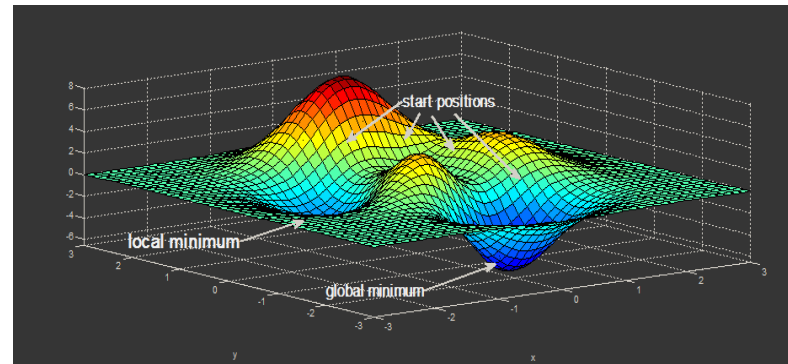
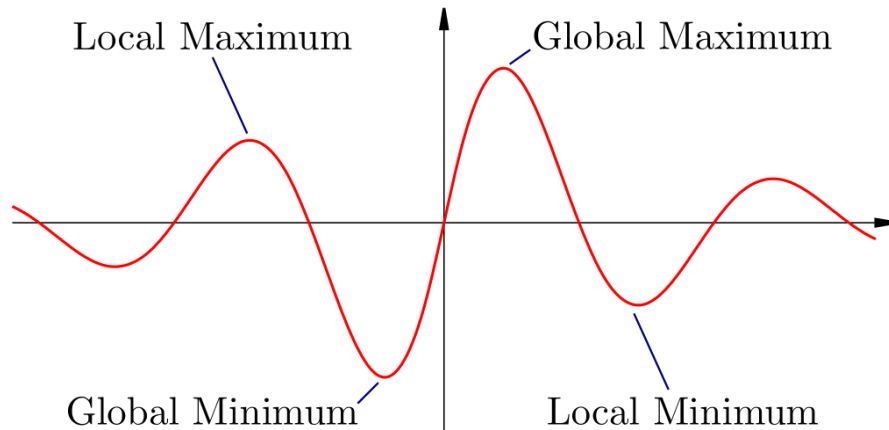
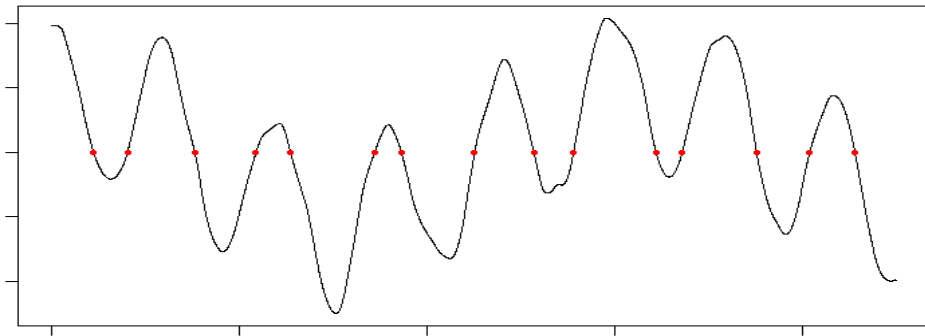


Blackboard Architecture (lock example)

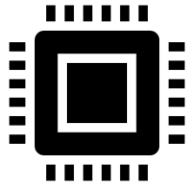
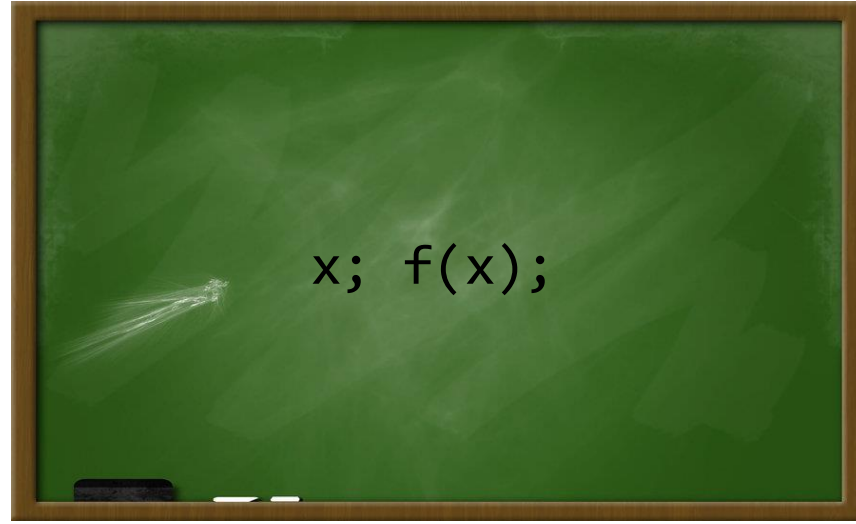


Newton Method

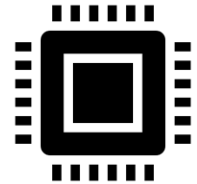
Multiple Local Minima



Blackboard Architecture

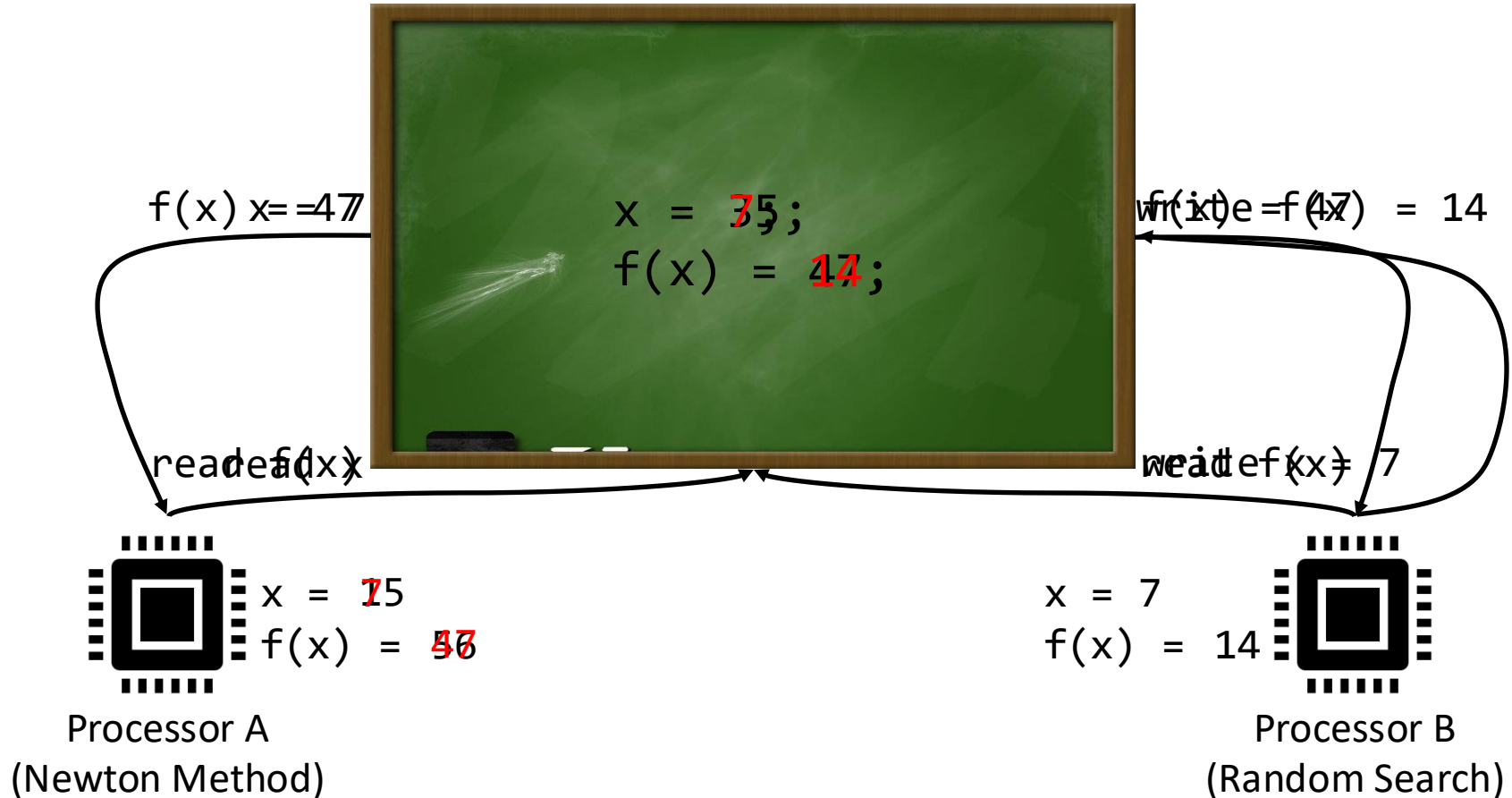


Processor A
(Newton Method)

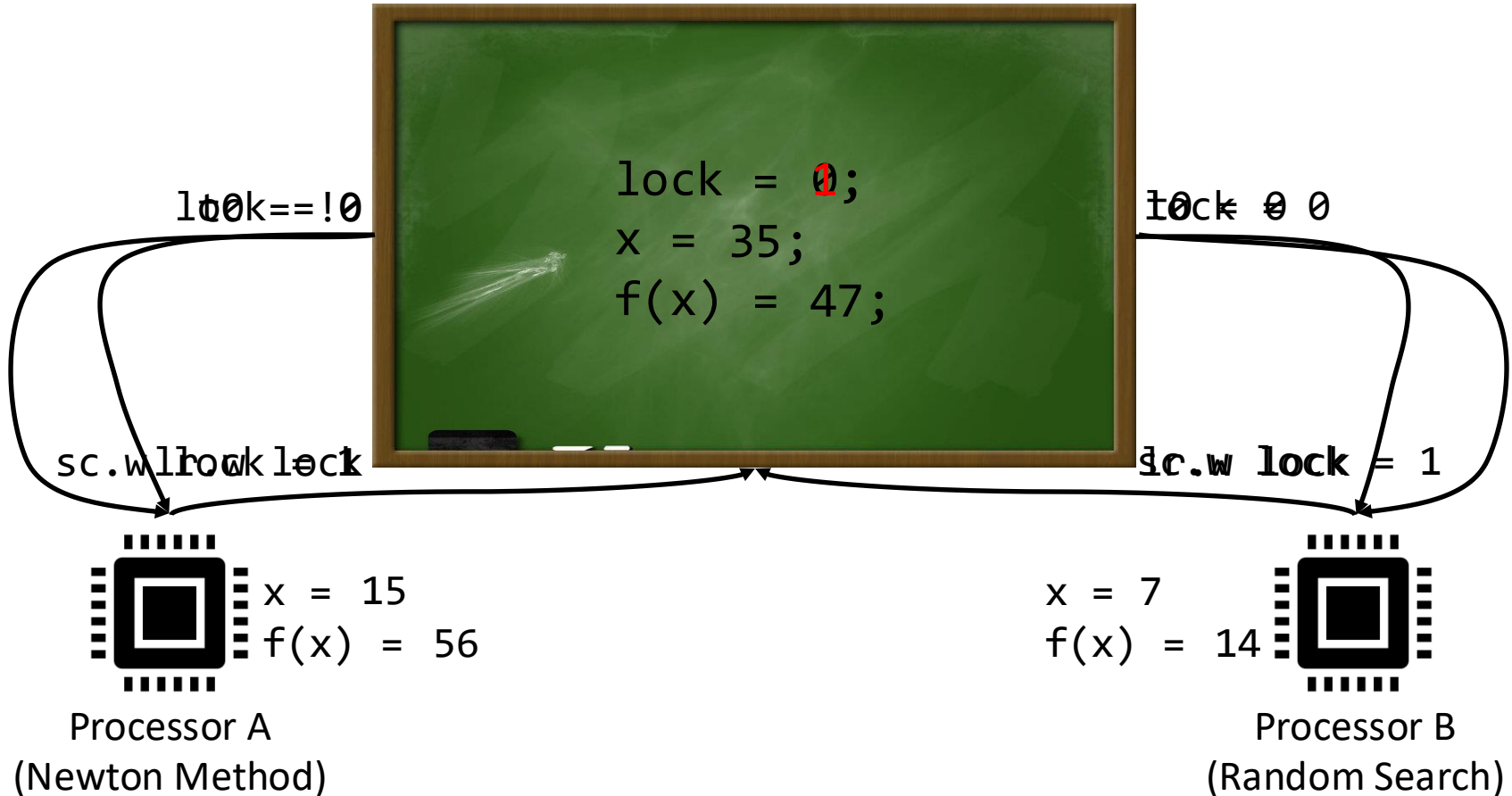


Processor B
(Random Search)

Blackboard Architecture (without lock)



Blackboard Architecture (with lock)



Related Terms

Critical Section

The shared resource

Race Condition

Trying to access resource at the same time

Starvation

One process fails to access resource for an extended amount of time

Deadlock

No progress!