Finding a Local Minimum

Method 1: Brute Force

What Brute Force Means

“Brute force” is an actual term which implies a very simple procedure repeated a potentially very large number of times. Computers are good at this sort of thing.

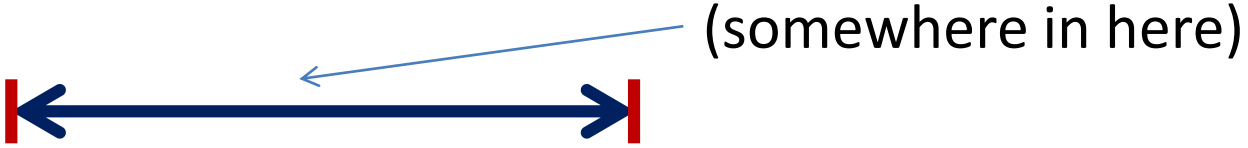
However, it tends to be true that a small amount of added intelligence may greatly reduce the number of iterations.

Therefore, “brute force” is generally not a compliment.

Finding a Minimum with Brute Force

Our first program for finding a minimum will use brute force at its finest.

If you know an interval in which the minimum occurs,



Then you can just start at the left endpoint and walk to the right with tiny steps until you find the smallest y-value.

The Problem

Write a program that will use a preloaded function, a step value (h) specified by the user, and provided endpoints – probably found using your 3-point interval function from last lesson. This program will plug in successive points on the interval and report back the smallest y-value.

Don’t forget to test your code!

Do not save this program.