

sort(3 3 5 1 2 2) = 1 2 2 3 3 5 (✓)
sort(4 6 4 5 4 5) = 4 4 4 5 5 6 (✓)
sort(4 5 5 6 4 6) = 4 4 5 6 5 6 (✗)

sort(3 3 5 1 2 2) = 1 2 2 3 3 5 (✓)
sort(4 6 4 5 4 5) = 2 2 4 5 5 6 (✗)
sort(4 5 5 6 4 6) = 2 2 5 5 6 6 (✗)

Correctness Loss

2.1

1.8

1.5

1.2

0.9

0.6

0.3

0.0

Repair Trajectory
✗ Buggy Program
● Repaired Program

sort(3 3 5 1 2 2) = 1 2 2 3 3 5 (✓)
sort(4 6 4 5 4 5) = 4 4 4 5 5 6 (✓)
sort(4 5 5 6 4 6) = 4 4 5 5 6 6 (✓)

sort(3 3 5 1 2 2) = 1 2 2 3 2 5 (✗)
sort(4 6 4 5 4 5) = 4 4 4 5 4 6 (✗)
sort(4 5 5 6 4 6) = 4 4 5 4 6 4 (✗)