

1D-GRADIENT-DESCENT($\Theta_{init}, \eta, f, f', \epsilon$)

- 1 $\Theta^{(0)} = \Theta_{init}$
- 2 $t = 0$
- 3 **repeat**
- 4 $t = t + 1$
- 5 $\Theta^{(t)} = \Theta^{(t-1)} - \eta f'(\Theta^{(t-1)})$
- 6 **until** $|f(\Theta^{(t)}) - f(\Theta^{(t-1)})| < \epsilon$
- 7 **return** $\Theta^{(t)}$