

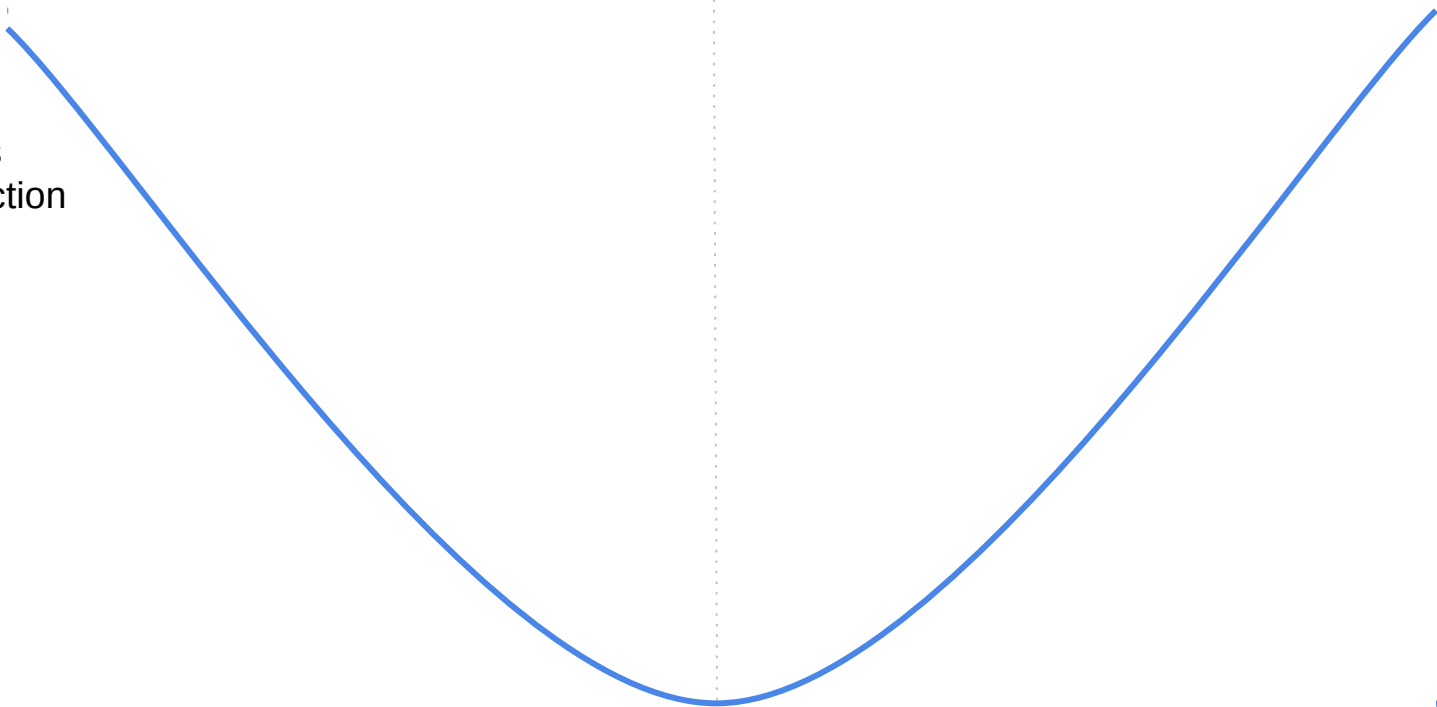
Minimizing loss...

Moving down the curve...



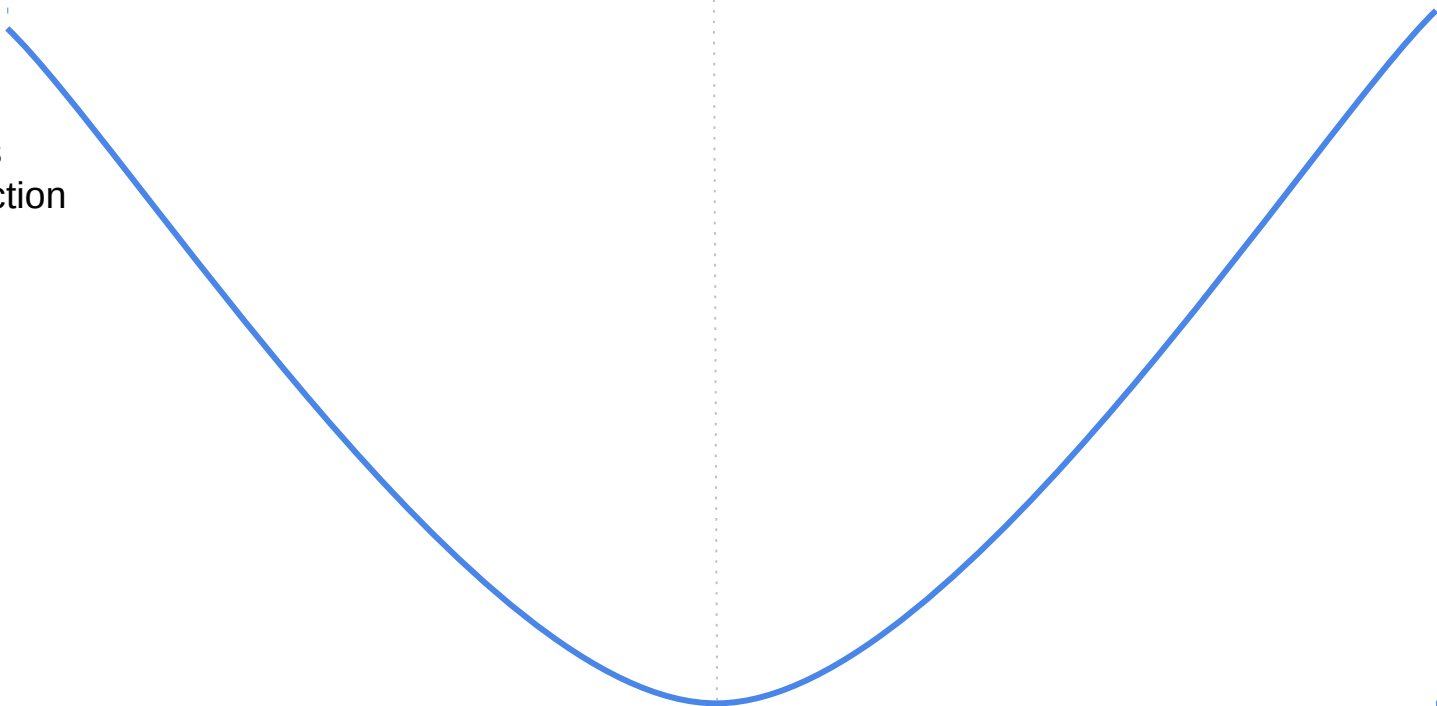
Laurence Moroney, Google

Loss
Function

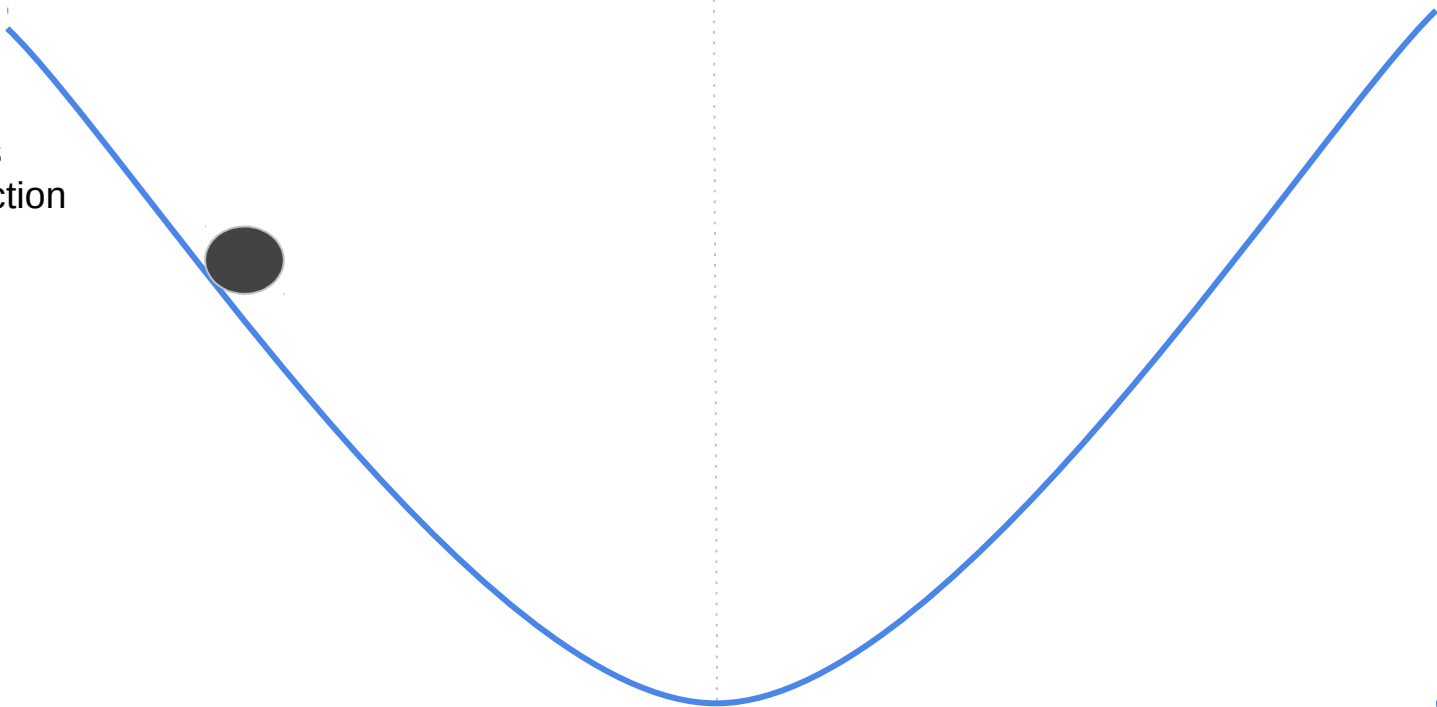


Loss
Function

Minimum of
Loss Function

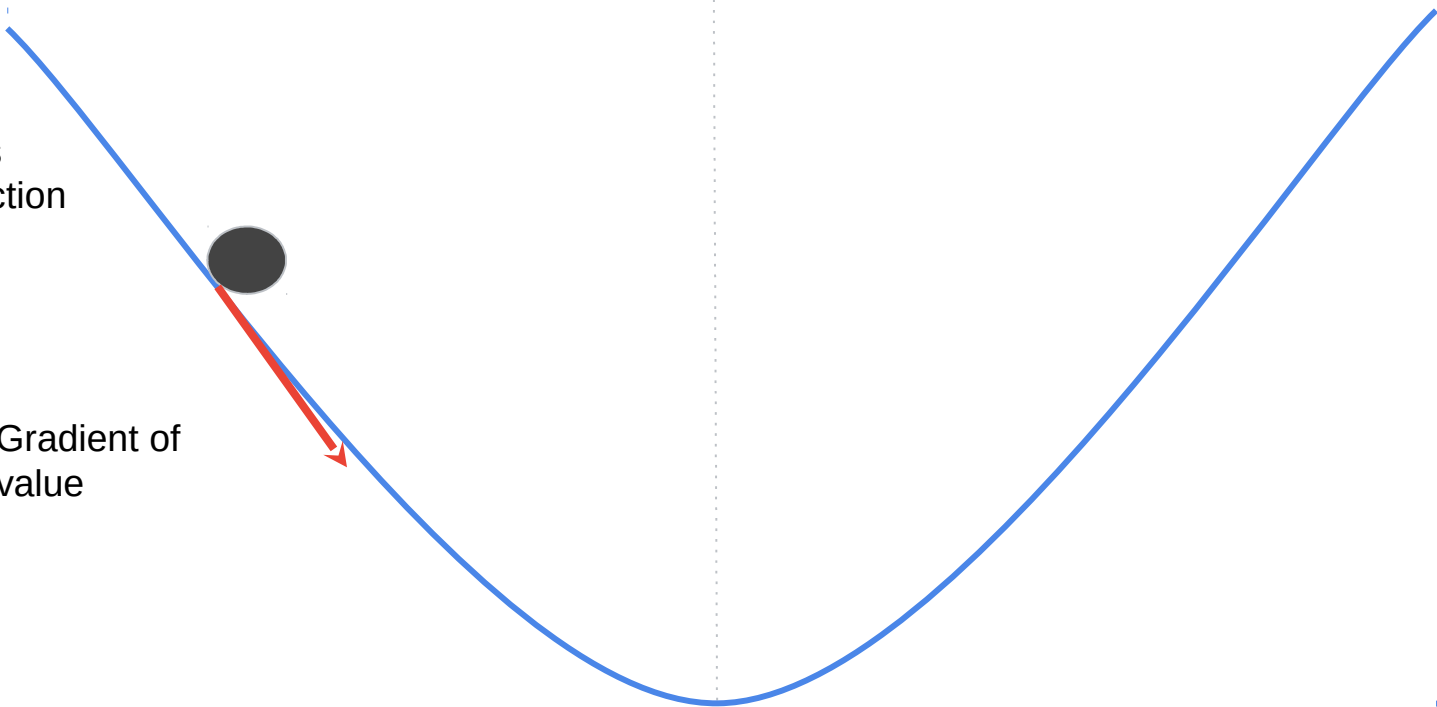
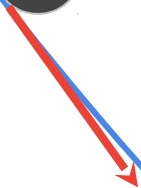


Loss
Function



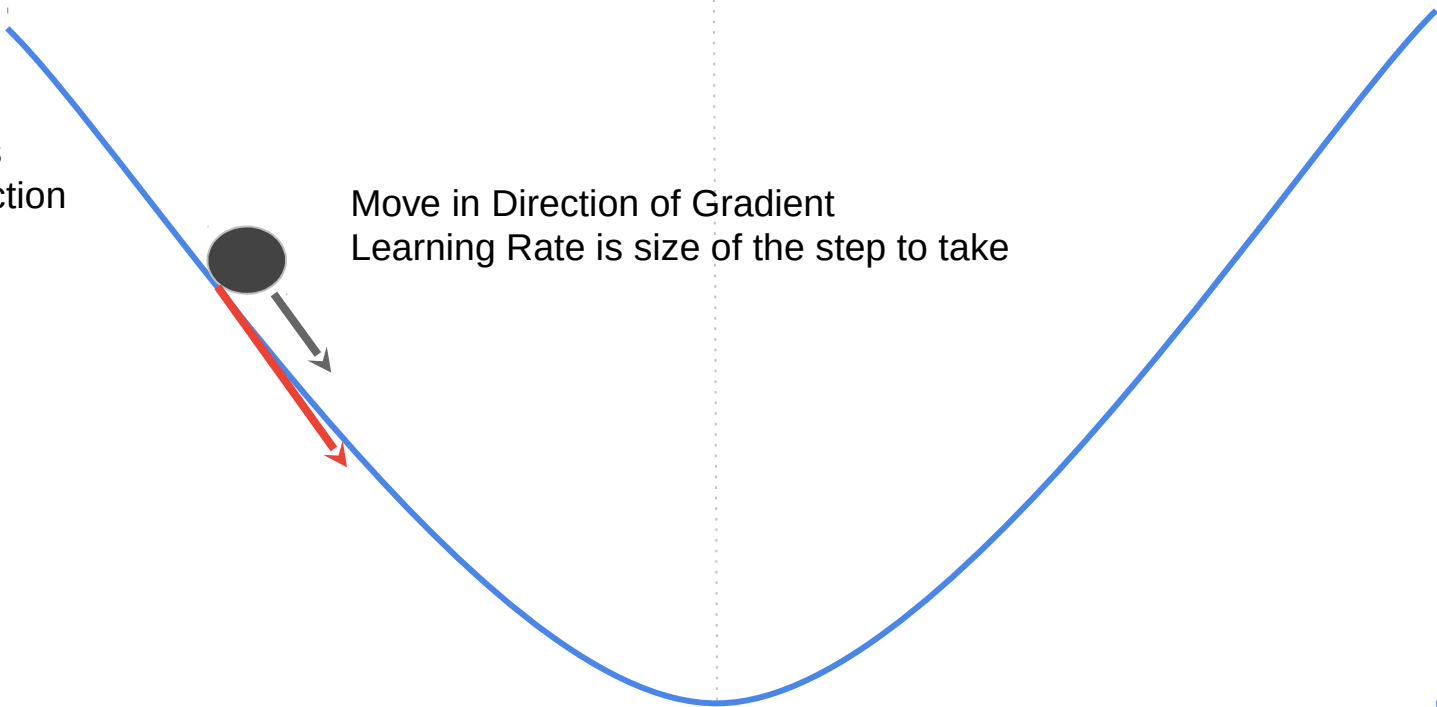
Loss
Function

Gradient of
value



Loss
Function

Move in Direction of Gradient
Learning Rate is size of the step to take



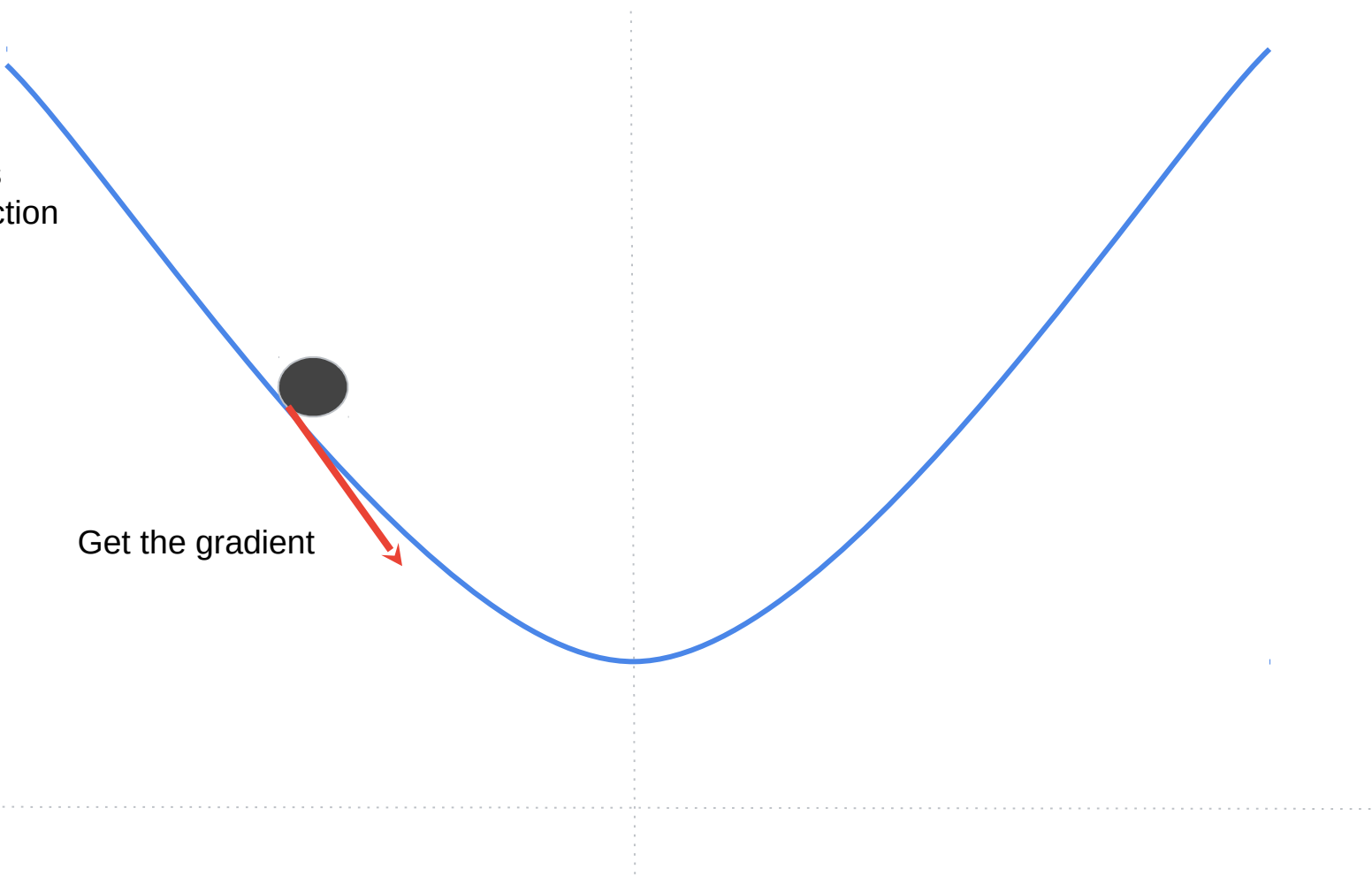
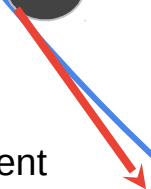
Loss
Function

End up here



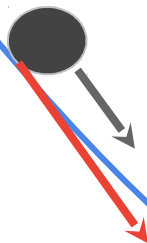
Loss
Function

Get the gradient



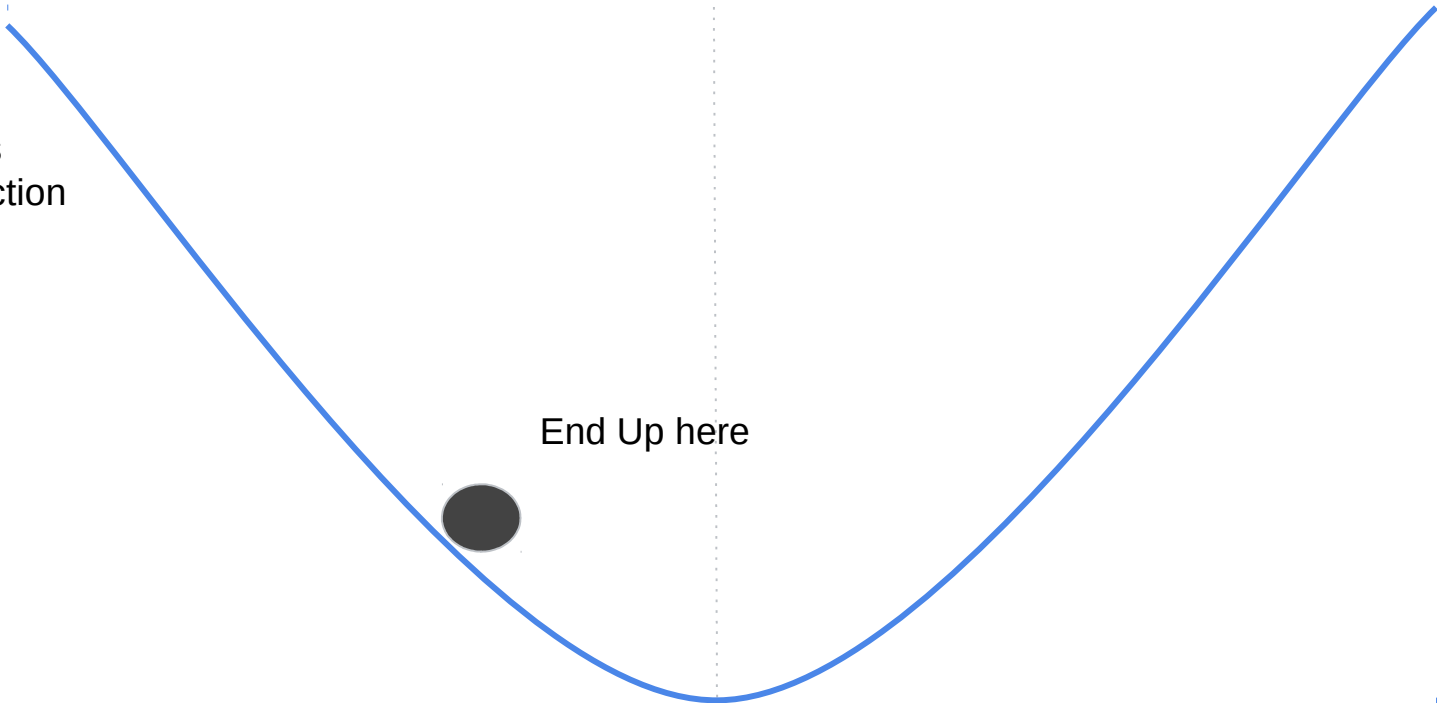
Loss
Function

Move in Direction of Gradient

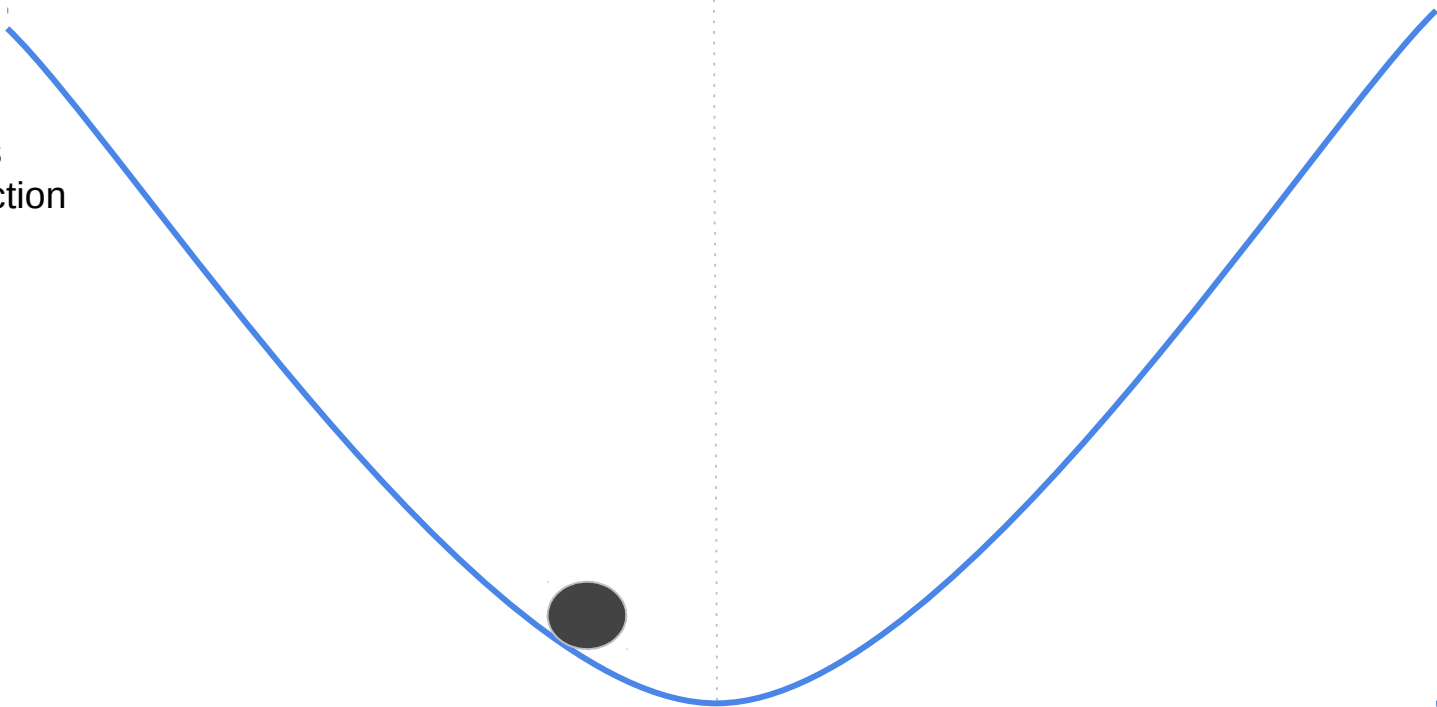


Loss
Function

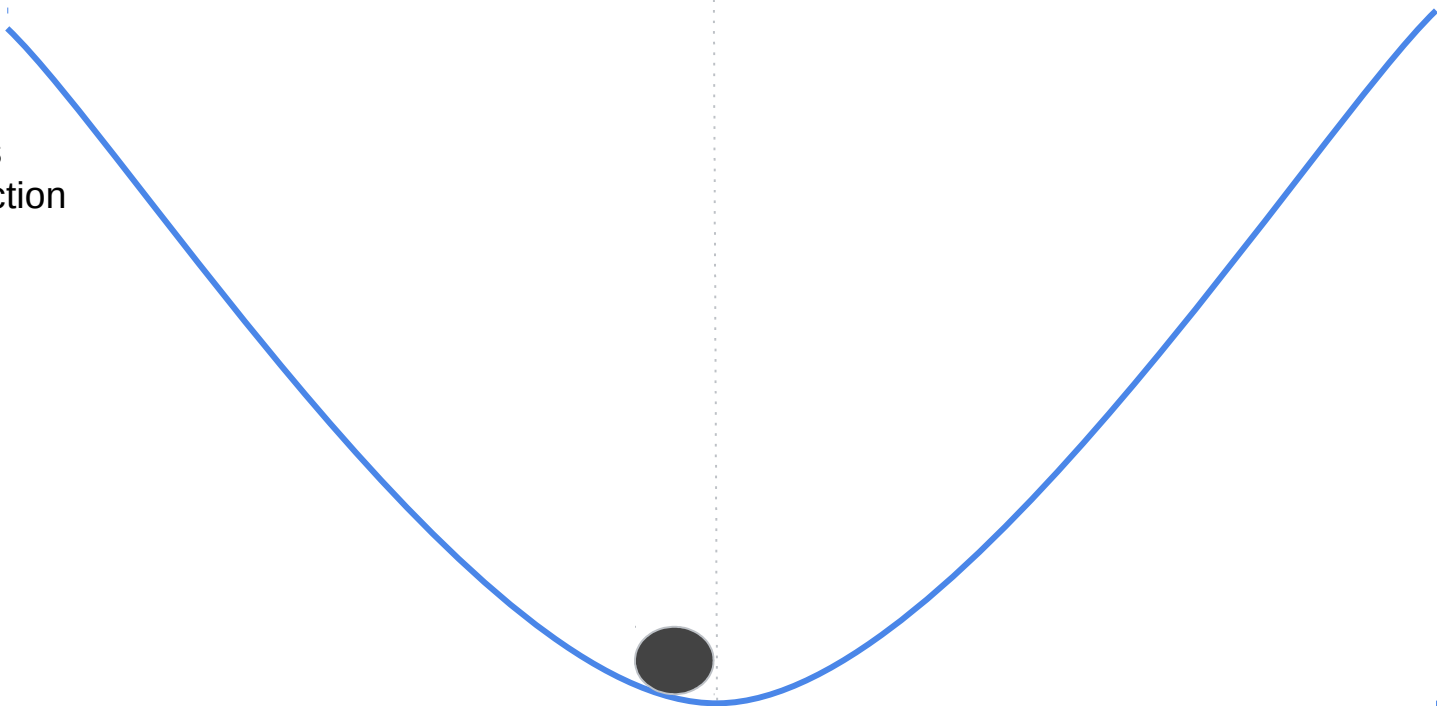
End Up here



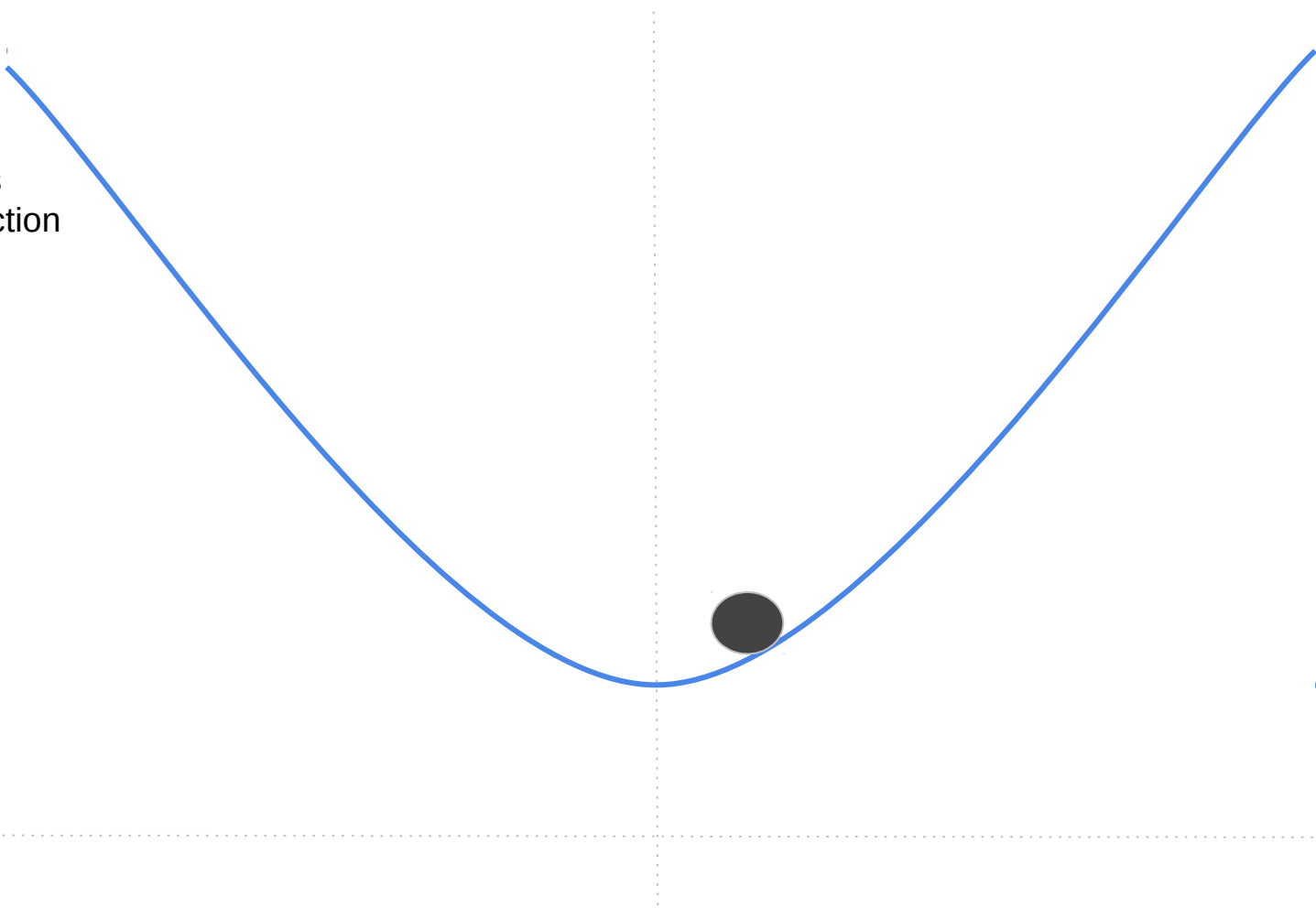
Loss
Function



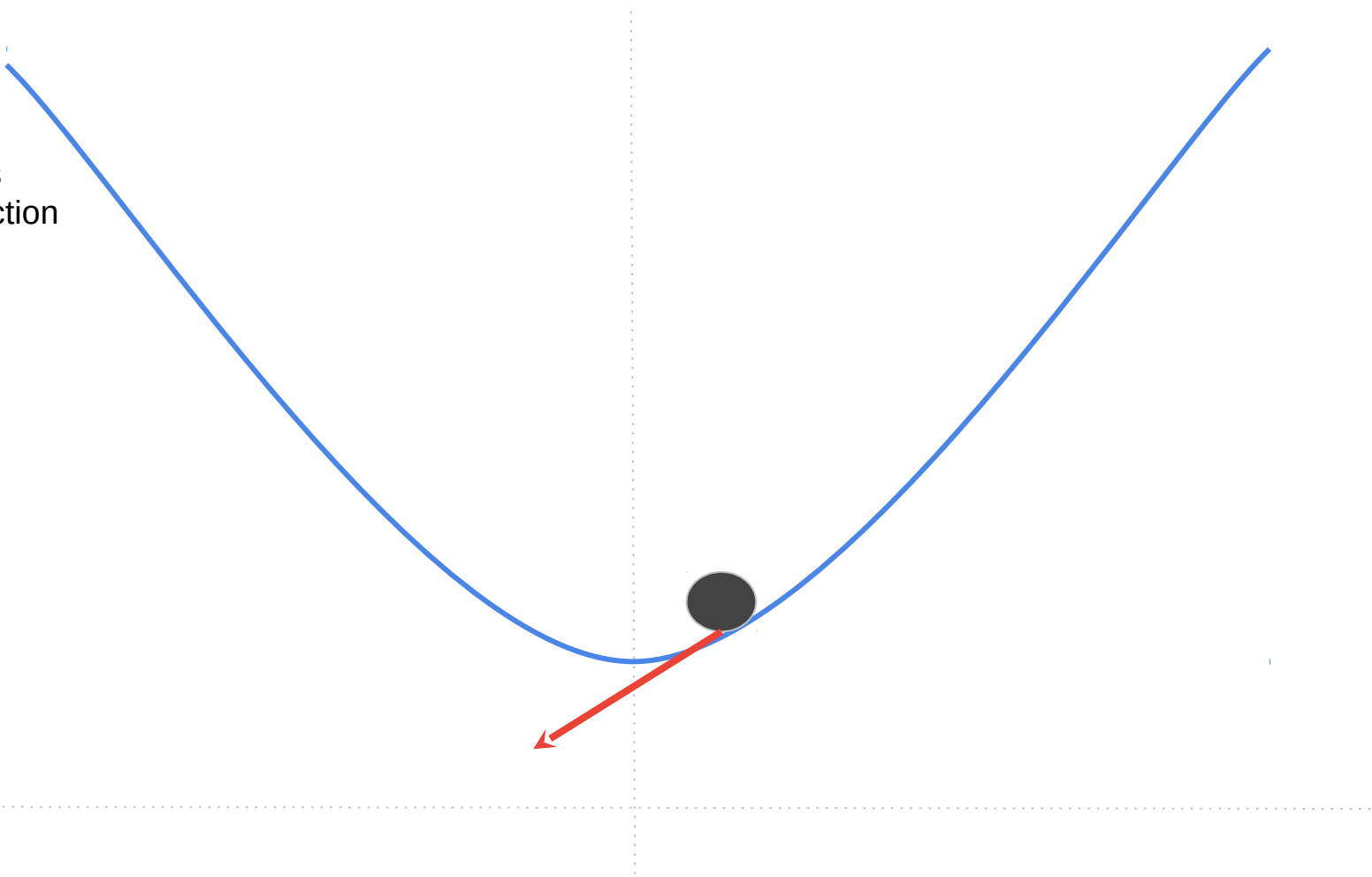
Loss
Function



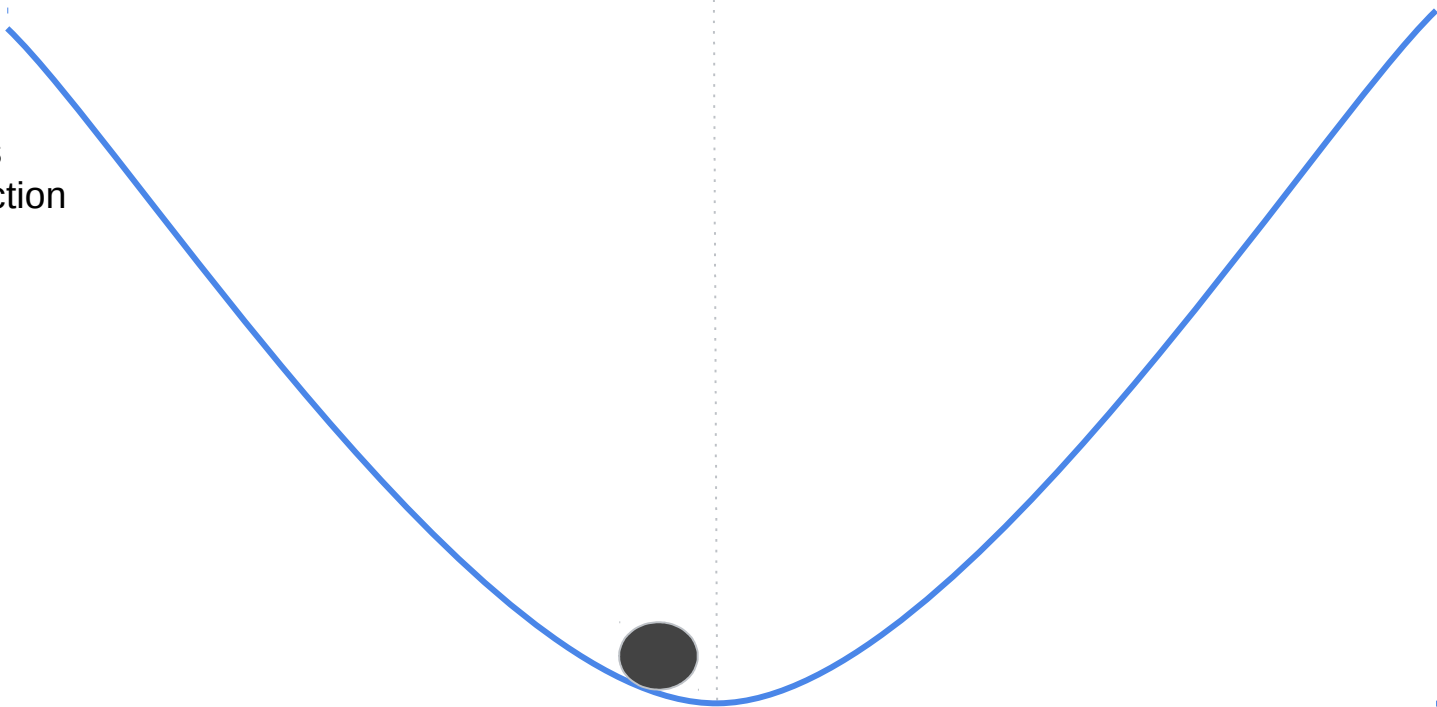
Loss
Function



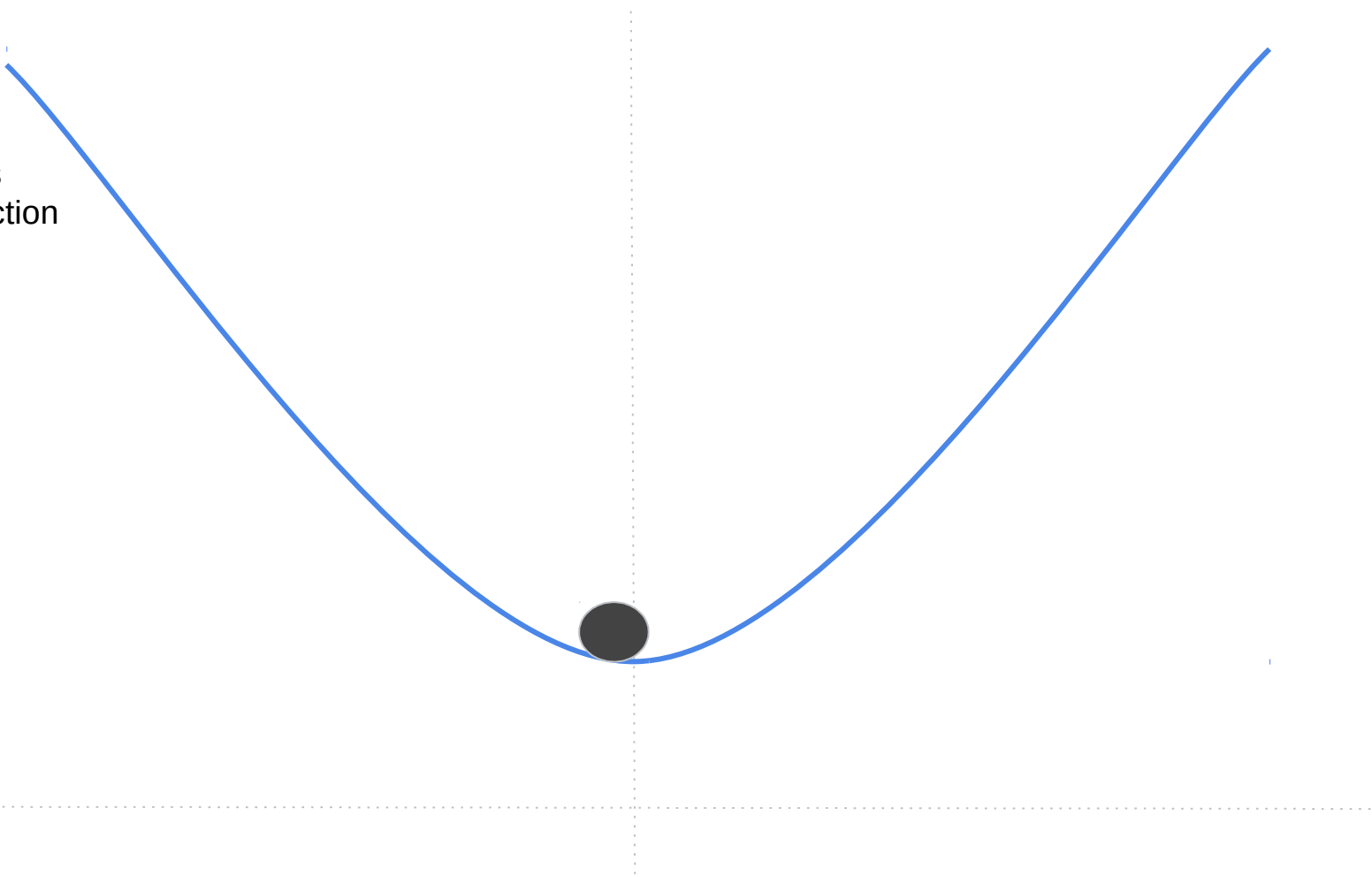
Loss
Function



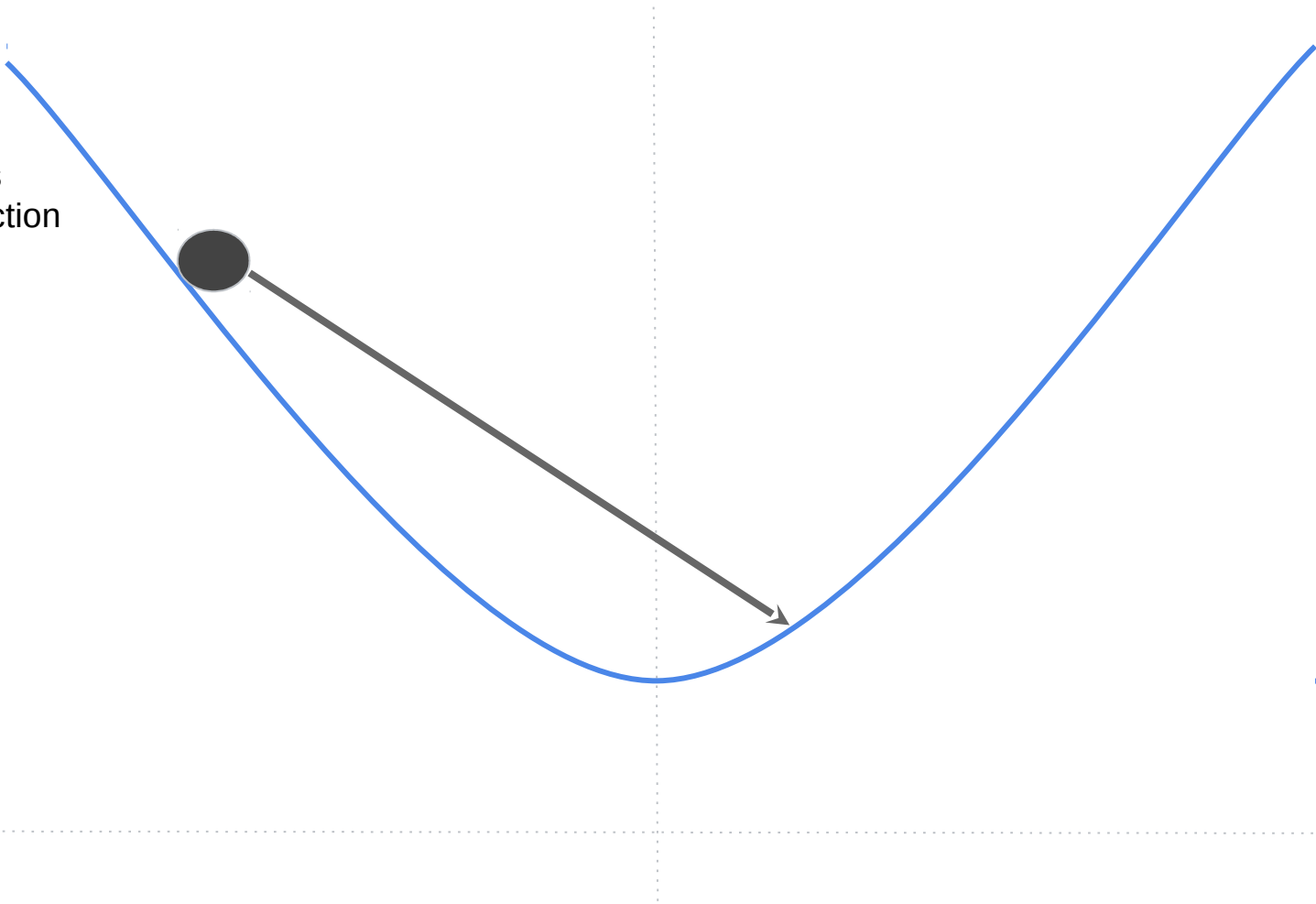
Loss
Function



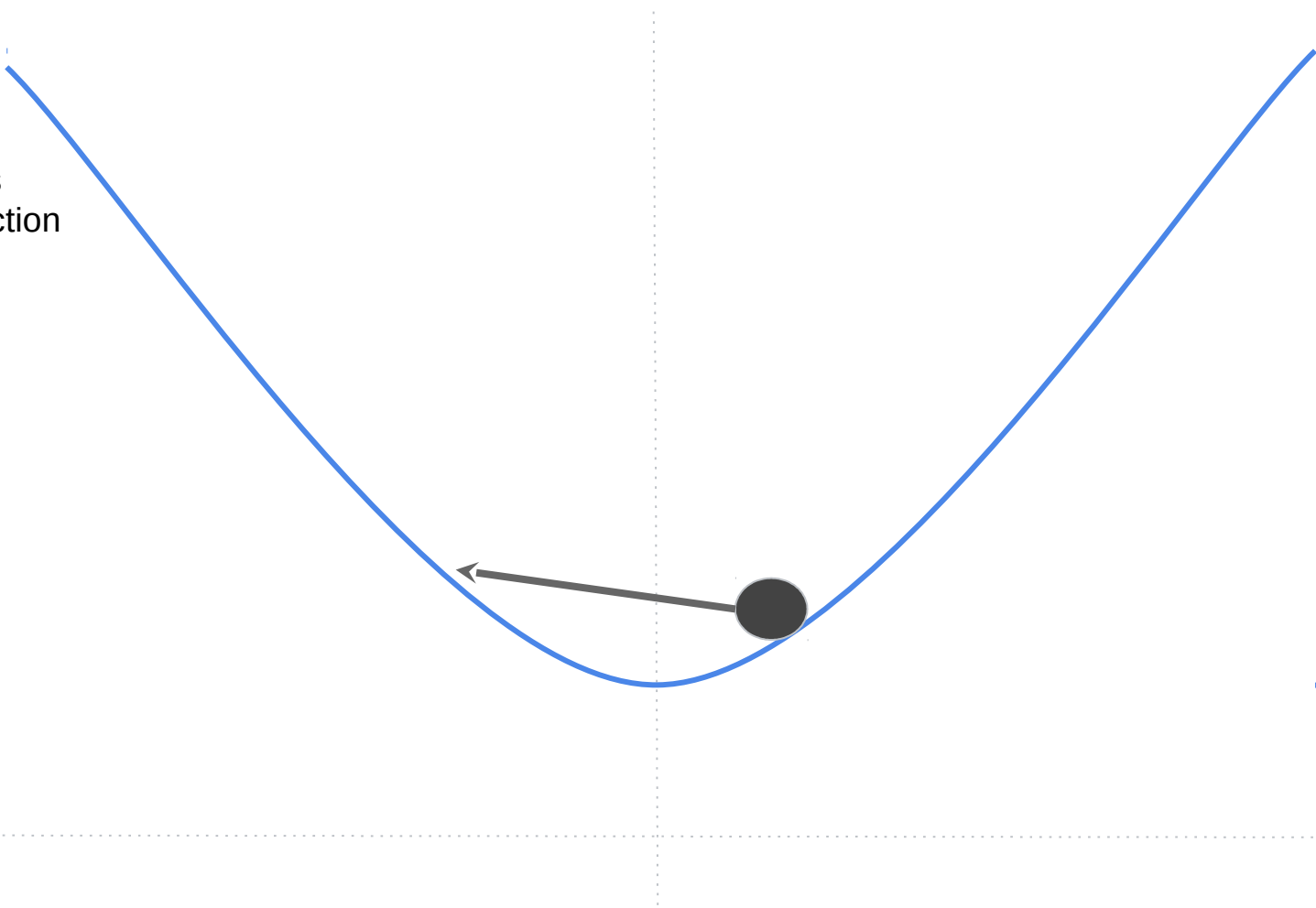
Loss
Function



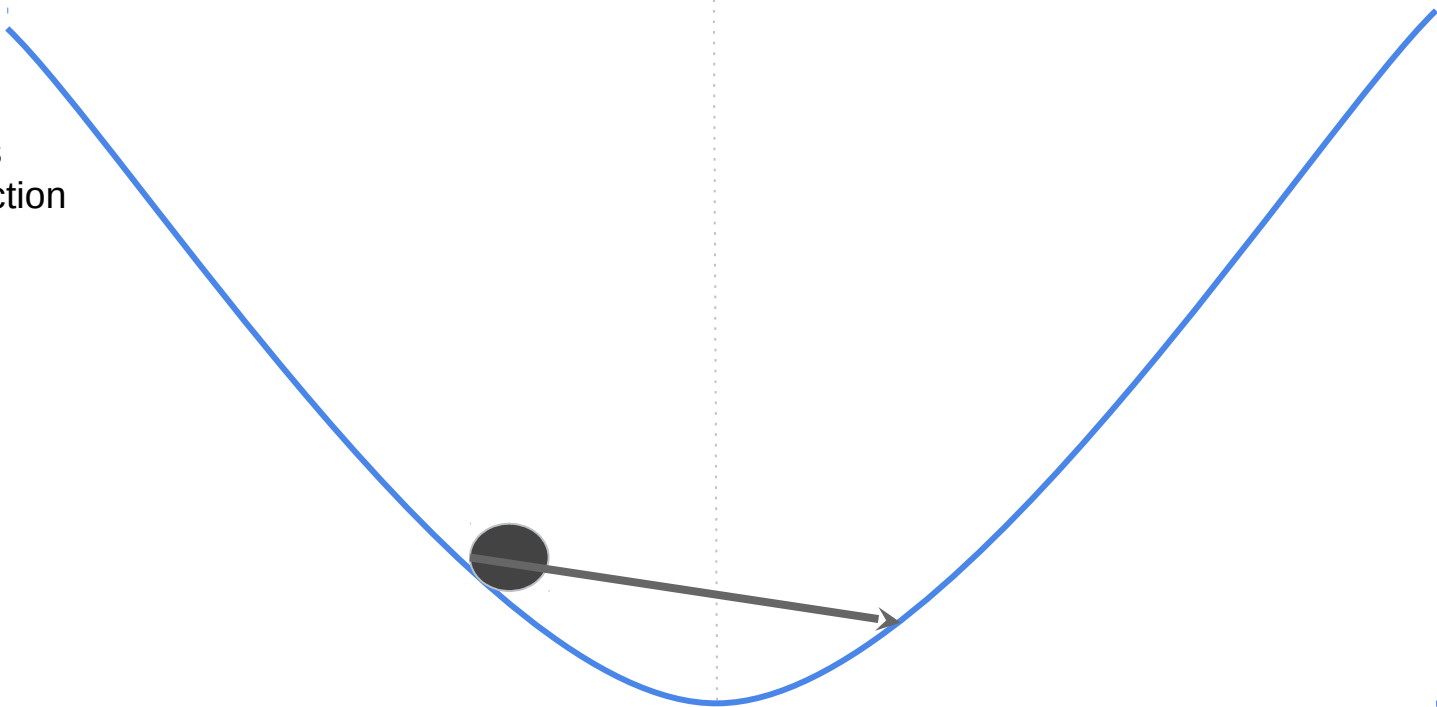
Loss
Function



Loss
Function



Loss
Function



Loss
Function

Move in Direction of Gradient



Loss
Function

Move in Direction of Gradient



Loss
Function

Move in Direction of Gradient



Loss
Function

Move in Direction of Gradient



Loss
Function

Move in Direction of Gradient





Your turn!