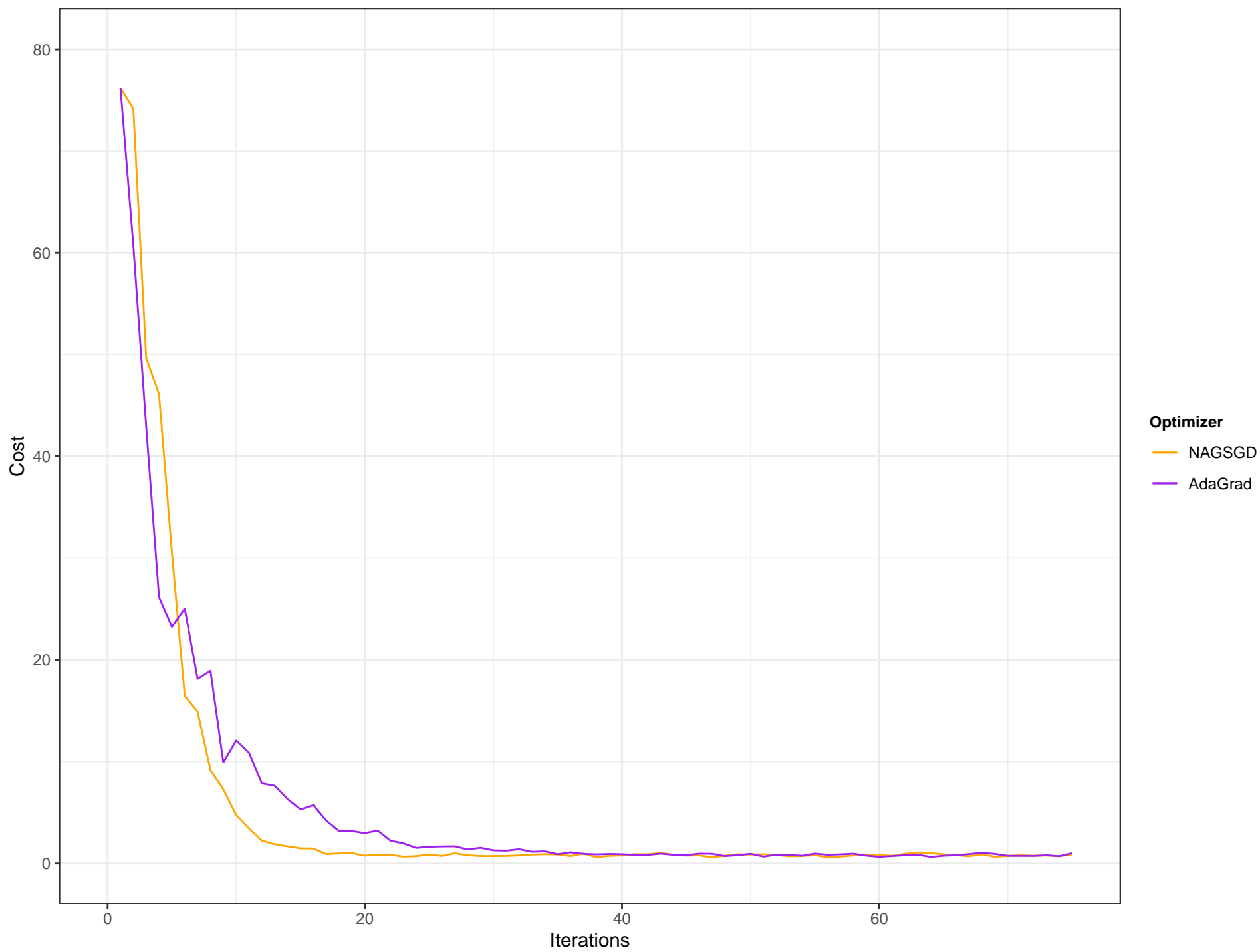


Q.1.d: Plot of cost function

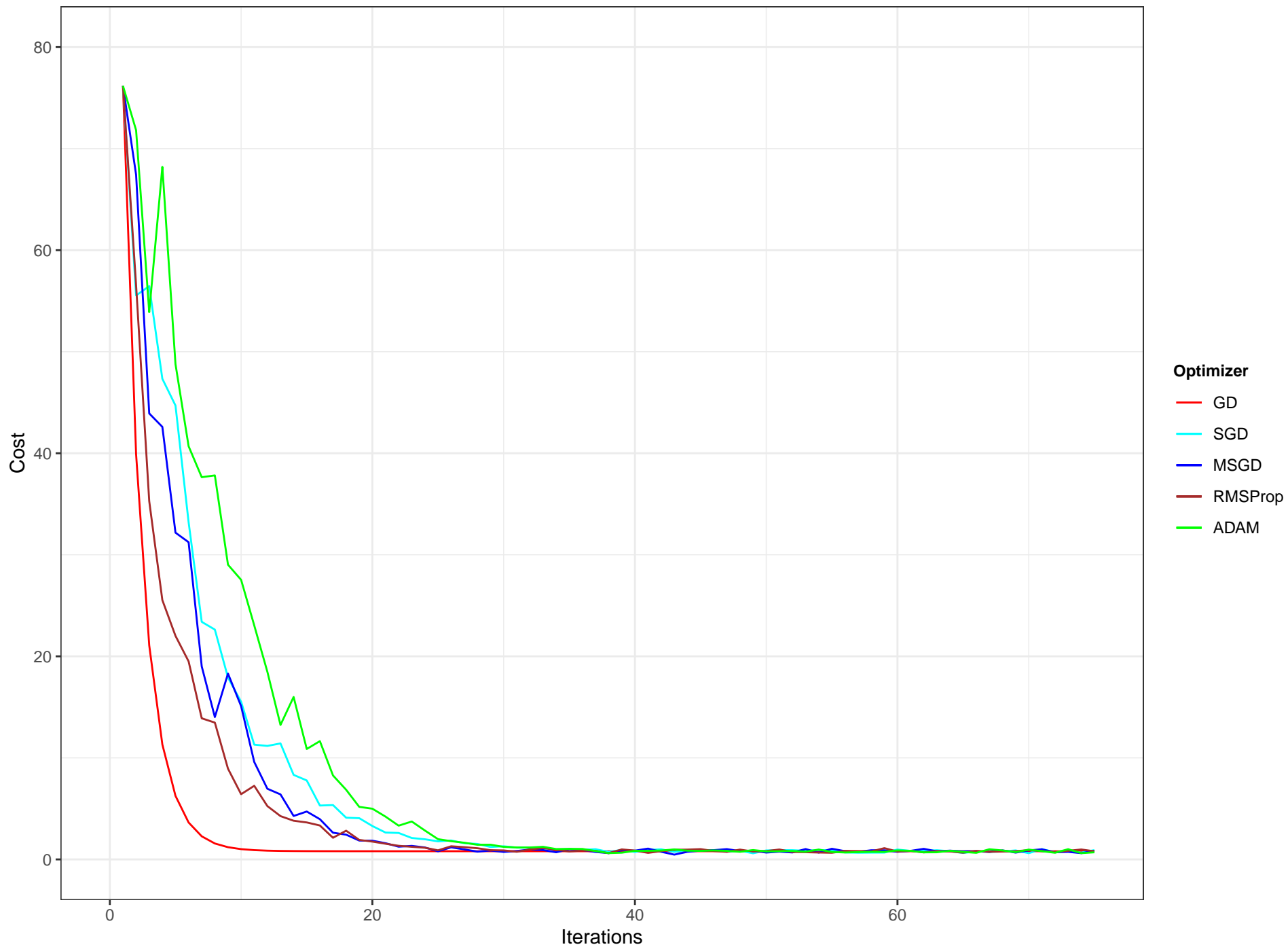
NAGSGD: $a=0.155$, $b=0.58$ | AdaGrad: $a=1.5$



Q.1.d: Additional plots of cost functions

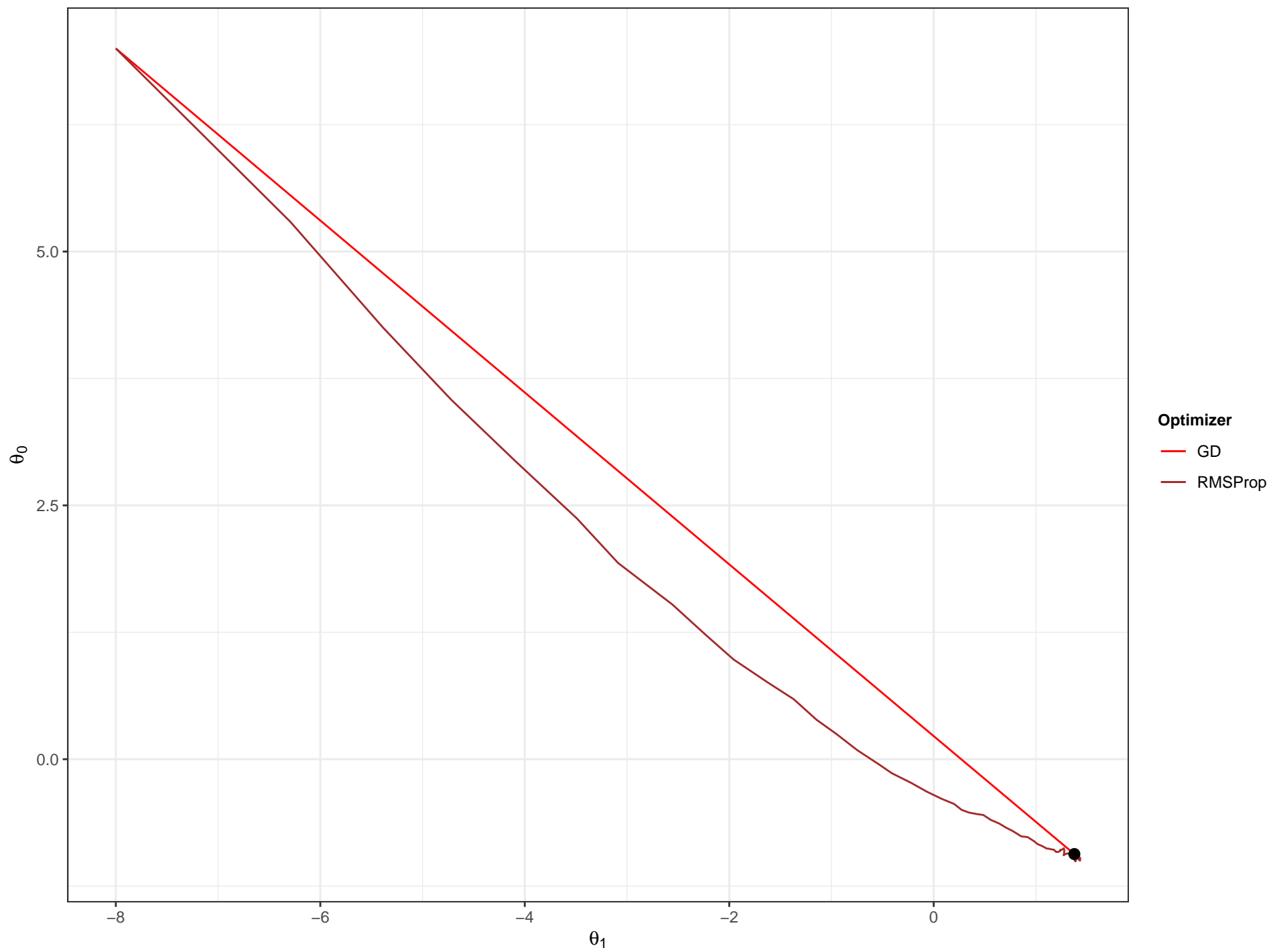
GD: $\alpha=0.28$ | SGD: $\alpha=0.085$ | MSGD: $\alpha=0.105$, $\beta=0.27$

RMSProp: $\alpha=0.054$, $c=0.999$ | ADAM: $\alpha=0.45$, $\beta_1=0.554$, $\beta_2=0.999$



Q.1.e: Phase plot of θ_0 vs θ_1

GD: $a=0.28$ | RMSProp: $a=0.054$, $c=0.999$



Q.1.e: Additional phase plots of θ_0 vs θ_1

SGD: $a=0.085$ | MSGD: $a=0.105$, $b=0.27$ | NAGSGD: $a=0.155$, $b=0.58$

AdaGrad: $a=1.5$ | ADAM: $a=0.45$, $b=0.554$, $c=0.999$

