

Homework 4

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04 October 2020

Likelihood plot for 3)

MLEs highlighted with red circles.

```
likelihood <- function(theta){  
  (1-theta)/4 * theta/12 * 1/2 * (3-theta)/12 * theta/4  
}  
theta <- seq(-1,5,by=0.001)  
plot(theta,likelihood(theta),type = "l",ylim = c(-0.001,0.0015))  
points((3/2)+sqrt(3)/2,likelihood((3/2)+sqrt(3)/2), col = "red")  
points((3/2)-sqrt(3)/2,likelihood((3/2)-sqrt(3)/2), col = "red")
```

