

```
1      using Distributions
2
3      function thompson_sampling( $\alpha$ ,  $\beta$ , apply; T=100)
4          for t in 1:T
5               $\theta$  = rand.(Beta.( $\alpha$ ,  $\beta$ ))
6              x = argmax( $\theta$ )
7              r = apply(x)
8               $\alpha$ [x],  $\beta$ [x] = ( $\alpha$ [x] + r,  $\beta$ [x] + 1 - r)
9          end
10         return Beta.( $\alpha$ ,  $\beta$ )
11     end
12
```