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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
```