

```
1  data {
2    int<lower=0> N;
3    real x[N];
4  }
5  parameters {
6    real<lower=0> alpha;
7    real<lower=0> theta;
8  }
9  model {
10   real lpa[N];
11
12   theta ~ gamma(1, 3);
13   alpha ~ gamma(1, 3);
14
15   for (i in 1:N) {
16     lpa[i] = pareto_lpdf(x[i] | theta, alpha);
17   }
18
19   target += sum(lpa);
20 }
```