Suppose we have the following PCFG for modeling some simple English sentences.
- Terminals {the, a, some, steak, fork, sauce, Alice, golden, hot, ate, I ...}
- Non-terminals {S, NP, VP, PP, NBAR, NN, PRPN, PRON, P, JJ, VB}

1.0 S → NP VP	0.6 VP → VB NP 0.3 VP → VB 0.1 VP → VP PP	1.0 PP → P NP
		1.0 PRON → I
0.5 NP → DT NBAR 0.3 NP → PRPN 0.2 NP → PRON	0.75 NBAR → NN 0.15 NBAR → NBAR PP 0.1 NBAR → JJ NBAR	1.0 PRPN → Alice
		0.5 JJ → golden 0.5 JJ → hot
0.4 DT → the 0.4 DT → a 0.2 DT → some	0.35 NN → steak 0.35 NN → sauce 0.3 NN → fork	1.0 VB → ate
		1.0 P → with

1. What is the probability of the sentence "I ate" in the grammar?
2. What would be the probability of the sentence if it had a second parse?