Kirsten P

H.W. #1

Part I: Use Bigram Language Model with add-one smoothing.

<S> I am sam </s>
<S> sam I am </s>
<S> I am sam </s>
<S> I do not like green eggs and sam </s>

$$P(sam \mid am) = \frac{c(am, sam) + 1}{c(am) + N11} = \frac{2+1}{3+11} = \frac{3}{14} \approx 0.214$$

add-one

am:			
	sam	2	3
	</s>	1	12
	am	0	··1
	I	0	1
	do	0	1
	not	0	1
	like	0	1
	green	0	1
	eggs	0	1
	and	0	1
	<S>	0	1
		3	14

$\frac{3}{14} \approx 0.214$