

ICS 661 Quiz 2

Given the following relative bigram probabilities, show and calculate the formula for the Perplexity of “The player kicked the ball kicked him.”

	the	player	kicked	ball	him	</s>
<s>	0.05	0.001	0.00002	0.0003	0.000008	0
the	0.000001	0.06	0.004	0.09	0.000001	0.000001
player	0.000003	0.00003	0.04	0.000007	0.000001	0.007
kicked	0.6	0.0005	0.000001	0.0008	0.009	0.02
ball	0.002	0.01	0.08	0.00004	0.000002	0.08
him	0.009	0.000004	0.000005	0.0006	0.000001	0.07

In the above table, $P(\text{kicked} \mid \text{player}) = 0.04$