COS 454/554 Fall 2022 <u>Class Exercise 3</u>   3 questions; 2 pgs.   2022-10-05

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1. Write your name below:

2. Using Figure 14.10 (page 406) of the textbook as a model, depict the computation of the textbook's OPTIMAL-BST algorithm (page 405) given the following key distribution:

i:	0	1	2	3	4	5	6
p_i:		0.10	0.01	0.03	0.10	0.05	0.30
q_i:	0.03	0.01	0.03	0.06	0.06	0.02	0.20

3. (after class meeting) Complete Exercise 14.5-1 of the textbook. Ensure you follow the textbook's convention for pseudocode. Prove, or explain in detail, the correctness of your answer.