1 Exercises

Exercise 1. Insert the following keys in that order into a max-heap:

\[
\text{E A S Y Q U T I O N}
\]

a. What is the state of the array \( p_q \) representing the resulting tree?
b. What is the height of the tree (the root is at height zero)?

Exercise 2. Suppose that a letter in the input means \textit{insert the letter} into an initially empty min-PQ and an asterisk (*) means \textit{remove the minimum} from the priority queue. What is left in the priority queue after the following input is processed?

\[
P R I O \quad * \quad R \quad * \quad I \quad * \quad T \quad * \quad Y \quad * \quad * \quad Q \quad U \quad E \quad * \quad *
\]

2 Solutions

Solution 1.

a. - Y S U Q E T A I N
b. 3

Solution 2. v