Module 13

Activity 6

Suppose that the sequence P R I O \* R \* \* I \* T \* Y \* \* \* Q U E \* \* \* U \* E (where a letter means insert and an asterisk means remove the maximum) is applied to an initially empty priority queue. Give the sequence of values returned by remove the maximum operations.

|  |  |  |  |
| --- | --- | --- | --- |
| P |  |  |  |
| P | R |  |  |
| I | P | R |  |
| I | O | P | R |
| I | O | P |  |
| I | O | P | R |
| I | O | P |  |
| I | O |  |  |
| I | I | O |  |
| I | I |  |  |
| I | I | T |  |
| I | I |  |  |
| I | I | Y |  |
| I | I |  |  |
| I |  |  |  |
|  |  |  |  |
| Q |  |  |  |
| Q | U |  |  |
| E | Q | U |  |
| E | Q |  |  |
| E |  |  |  |
| U |  |  |  |
|  |  |  |  |
| E |  |  |  |