630945 2
Which of the following abstract datatypes would be the best choice for part
of the implementation of the back button on a Web browser?

    *a. a Stack

    b. a Queue

    c. a Priority Queue

    d. a List

    e. a Dictionary

    f. "
    g. "
    h. "
    i. "
    j. "

    General Feedback:

When you click on the back button, you should see the last page you visited, so
the datatype that stores the previously visited webpages must be last-in-first-out. Of the
abstract datatypes listed, Stack is the only one that is last-in-first-out.

630947 2
Which of the following abstract datatypes would be the best choice for part
of the implementation of a program modeling the arrival of patients to an
emergency room in a hospital?

    a. a Stack

    b. a Queue

    c. A List

    *d. a PriorityQueue

    e. a Dictionary

    f. "
    g. "
    h. "
    i. "
    j. "

    General Feedback:

In an emergency room, you want to serve patients in the order of how urgent their
condition is, and if two patients have equally urgent conditions, in the order that they
arrived. A PriorityQueue is the only abstract datatype listed that meets both of these
conditions.

633266 2
Two algorithms accomplish the same task on a collection of N items.

Algorithm A performs N/2 operations. Algorithm B performs N log N operations. Under what conditions does algorithm A offer better performance?

a. N <= 4

b. N > 8

c. N > 2

*d. For all N.

e. For no N.

f. "
g. "
h. "
i. "
j. "

General Feedback:

For all legal collection sizes, N/2 < N log N.