1. Describe a (n lg n)-time algorithm that, given a set S of n integers and another

integer x, determines whether or not there exist two elements in S whose sum is

exactly x.

1. Page 39
2. The code for MAX-HEAPIFY is quite efficient in terms of constant factors, except

possibly for the recursive call in line 10, which might cause some compilers to

produce inefficient code. Write an efficient MAX-HEAPIFY that uses an iterative

control construct (a loop) instead of recursion