Problem: In terms of space, why is heap sort attractive?

Problem: Does the following array represent a heap?

{8, 5, 9, 3, 6, 2, 1}

Problem: What is the maximum depth of a heap with n elements?
log(n)

Problem: Imagine that instead of using an array to represent the heap, we use a singly linked list. Why might this be innefficient? (Hint: Consider the insertions that must be done).

Problem: Is the sequence < 21, 15, 18, 8, 12, 11, 16, 4, 9 > a max-heap? Justify.

Problem: Show that, with the array representation for storing an n-element heap, the leaves are the nodes indexed by $\left\lfloor \frac{n}{2} \right\rfloor + 1, \ldots, n$.