CPSC 5031 Homework 5 (5 pts)
Heap Sort

Let's write more code!

Implement HeapSort per the algorithm* to sort an array *A* in ascending order.

> * Which algorithm? *You pick.* A big part of "algorithms" is knowing how to convert mathy pseudo-code into your language of choice. So use the textbook, use the slides, use the Internet… just pick one and run with it.

Here's what you need to turn in:
1. Where you got the algorithm from
2. Your code
3. The output of your code
4. An explanation of why you chose the test cases you did

FAQ
1. **How many test cases do I need?** You decide. It's your code, so you should best know where things might go wrong. Add test cases that explore each of these places where something could break.

2. **Can I get the algorithm off Wikipedia?** Yes. It just has to implement HeapSort.

3. **Are HeapSort and insertion into a Heap the same thing?** NO. They are most definitely not the same thing! Make sure you're doing HeapSort!

4. **Why are you making us write so much code that you said will just be in a library anyway?** Because the best way to get better at coding is to *write more code*. That's why I say "Let's write more code!" in every homework and on the tests. Keep doing it and you'll get just a little bit better every time. 👍