**Data Structures and Algorithms: Quiz (Makeup)**

**MTH 9815: Software Engineering for Finance**

**Duration: 40 minutes**

**EXERCISE 1**

Write a heapsort algorithm to sort an array of integers (use a heap data structure that can be used in the next exercise).

**EXERCISE 2**

Write a method to determine how many levels deep a heap is.

**EXERCISE 3 (BONUS)**

Write a method to determine whether the data structure you created above is actually a heap (either max heap or min heap).