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Data Structures I

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Assignment 2

This assignment implements a Fibonacci heap for analyzing its algorithmic complexity. There are two types of heaps implemented: (1) a standard Fibonacci heap which utilizes marks and cascading cuts in the decrease key operation, and (2) a naïve version which utilizes only single cuts. The following graphs plot the as a function of the heap size.

I. Random Test

The chart below plots.



Figure 1: Random Test

II. Biased Test

Figure 2: Biased Test



III. Special Test

Figure 3: Special Test

