* Don’t forget to set your Eclipse workspace and working set.
* **You must submit the JAR file, exported (with source code), from your Eclipse project.**
* **You must check your JAR file to make sure all the source files (.java files) are present. It can be opened with file compression programs such as 7-zip or Winrar.**
* **Failure to export properly will result in your work not getting marked.**

**To submit:**

* **Export your project to a JAR file, with source code.**
* **Name your JAR file ID\_Week15\_Q2.jar. For example, 6623110021\_Week15\_Q2.jar**
* **Submit the JAR file on MyCourseville.**

(11 marks, will be scaled to equal to other homeworks) A ternary min heap is a min heap where each node has at most 3 children. All properties are the same as a normal min heap. Its complete tree is filled from left to right at each level. It also has an array representation. An example is shown below:

The array representation is:

8

15

20

9

10

7

4

3

5

You are given the code for class Heap, a binary min heap (implemented using array). **Write a class TernaryHeap (you need to create it as a new .java file)**:

* The class TernaryHeap has all the variables and methods from class Heap.
* Make modifications to all necessary places so that Ternary heap works.
* Test cases are in TestHeap.java. The score for each test is in the code’s comment.
* Hint: For position i
  + the position of its parent node is (i-1)/3
  + the position of its child nodes are 3\*i+1, 3\*i+2, 3\*i+3
* Modify **only** **TernaryHeap.java**, or you will get 0 mark.