Huffman

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Question 1

▶ n piles of stones are arranged around a playground. The stones are to be merged into **one pile** in order. 2 piles of stones can be merged into one pile. The merger cost is the sum of the two stones. The total cost is the sum of all intermediate results.

▶ Try to design an algorithm to calculate the maximum and minimum total cost of merging n piles of stones into one pile

Question 2

▶ n piles of stones are arranged around a playground. The stones are to be merged into **one pile** in order. **At least** 2 piles and **at most** k piles of stones can be merged into a new pile at a time . The merger cost is the sum of the merged stones. The total cost is the sum of all intermediate results.

▶ Try to design an algorithm to calculate the maximum and minimum total cost of merging n piles of stones into one pile.

minimum total cost

if $(n \% (k-1) <> 1)\{$

       Fill in $(k - n \% (k-1))$ zeros

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Huffman algorithm, each time merge k small piles of stones