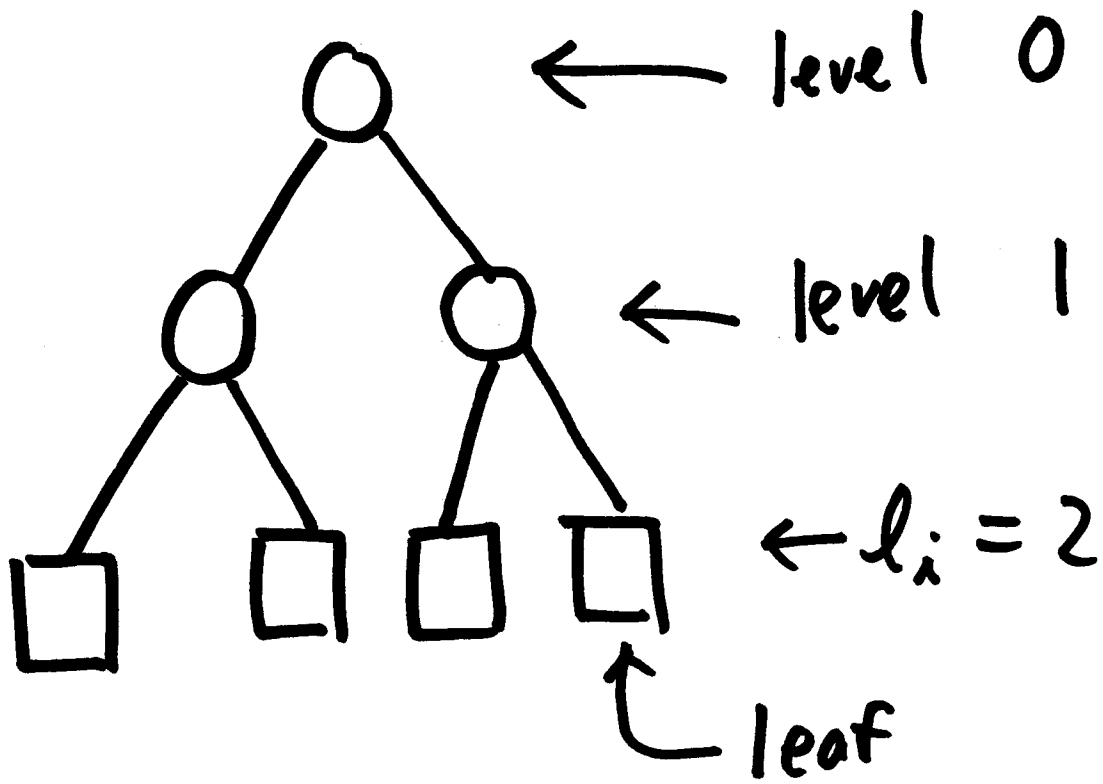


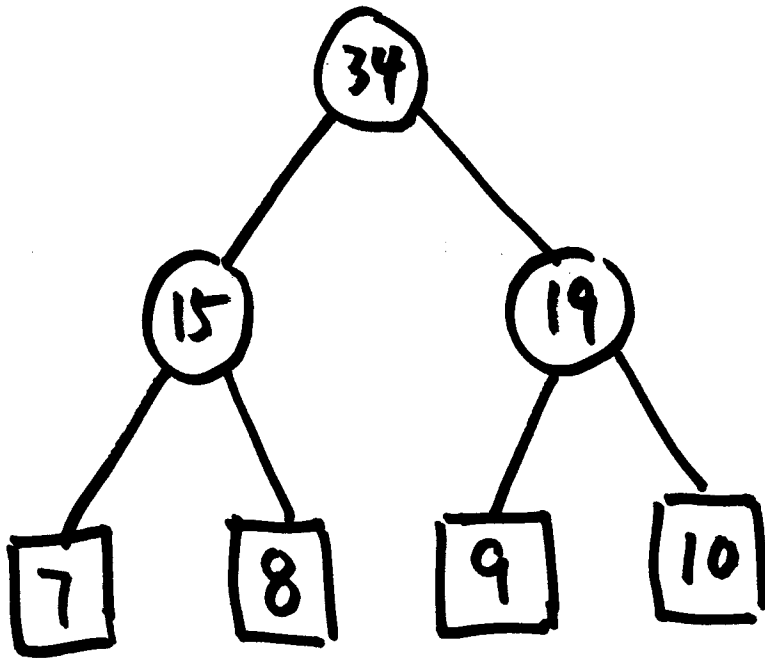


Given W_i Weights of leaves

Find the binary tree

$$\text{Min } \sum_i W_i l_i$$

4-18-06-(3)₃₂



$$7 \times 2 = 14$$

$$8 \times 2 = 16$$

$$9 \times 2 = 18$$

$$10 \times 2 = 20$$

$$68$$

$$(15)$$

$$(19)$$

$$(34)$$



$$68$$

Sum of $n-1$ circles

$$= \sum W_i l_i$$

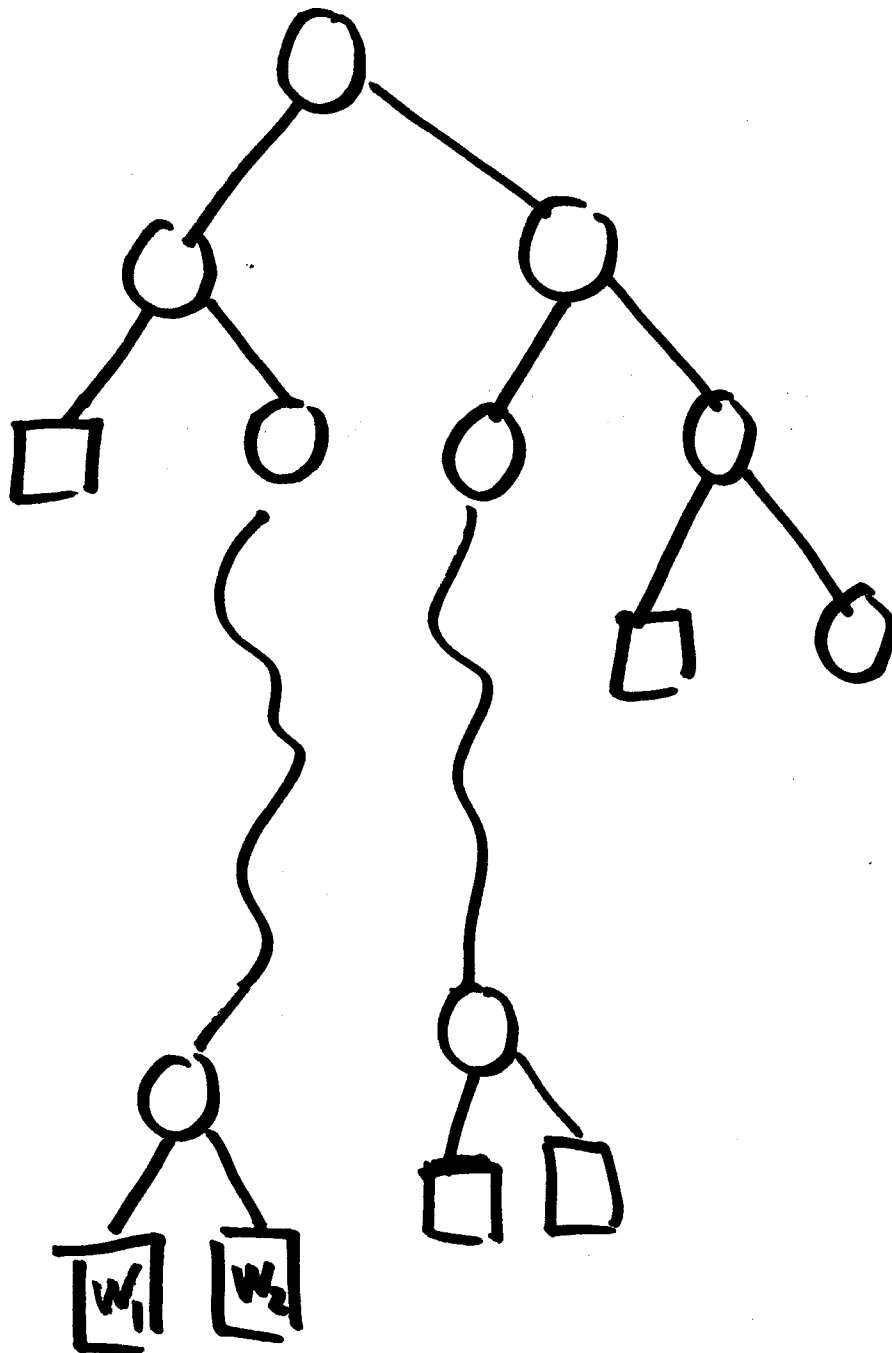
4-18-06 (4)

Sort the wts

$$w_1 \leq w_2 \leq \dots \leq w_n$$

Huffman's Tree

1952



4-18-06-(5)