



rules  
 2  
 7  
 10

Input:  $n$  positive integers  $< n = 10^7$   
 output: sorted list (increasing)

constraint: 1 MB (RAM)

use a bitmap that maps each integer to one bit in the map

$10^7$  bits  $<$  1 MB?

$1024 \text{ Kb} \rightarrow 1024 \times 1024$  bytes

$8 \times 10^6$  bits  $<$   $10^7$  bits

$$1048576 \times 8 = 8388608$$

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