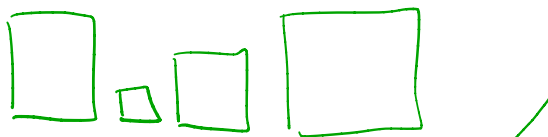# First Fit Heuristic for the Bin Packing Problem.

Items of different sizes

Some boxes (bins) with a fixed size.
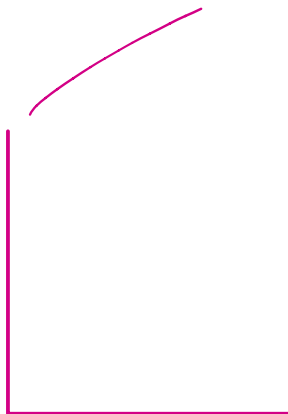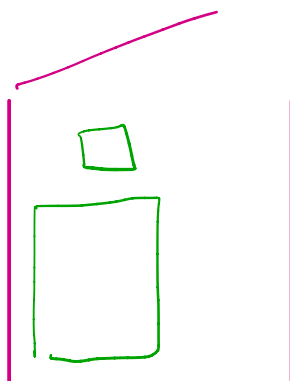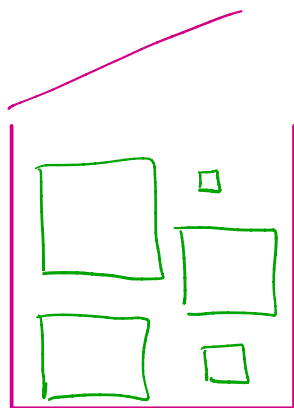
GOAL: fit all items into as few boxes as possible.

Input: [.. , .. , — , .. , .. , ..]

bin capacity

bins = [.. , .. , .. , ..]

find available space in bin = capacity − size of all items already in the bin.

keep track!

Strategy:

→ Open first bin.

for each item:

  for each open bin: ✗

  check if item fits in bin.

  → True: place the item, move on to next item. ← ✗
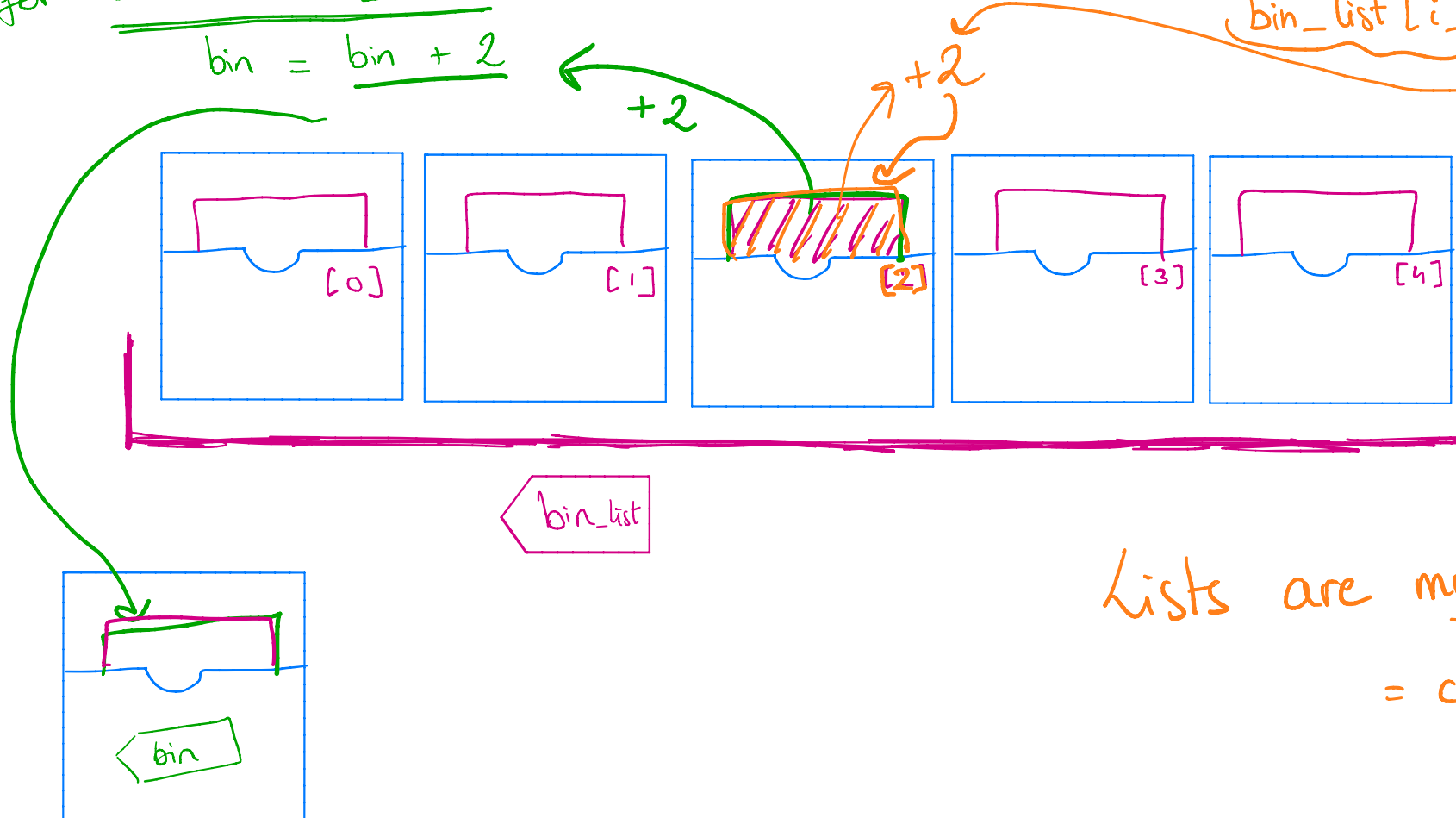
  → False: move on to next bin.

x if item is not placed:
open new bin, and place item in it.

for i in range (len(bin_list)):
bin_list [i] = bin_list [i] + 2

for bin in bin_list:
bin = bin + 2

+2

+2

[0]   [1]   [2]   [3]   [4]

bin_list

Lists are mutable.

= changeable.

bin