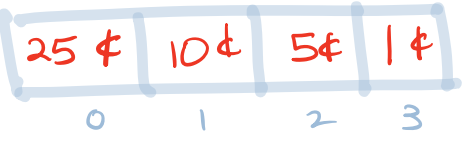
Greedy Algorithms

Greed is another Algorithmic Paradigm, i.e. an algorithm design principle. It works for some problems, not all.

E.g. making change with min # of coins.

A. coin denoms are



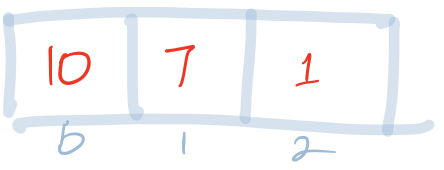
Principle: To use as few coins as possible,
- take the biggest denom coin possible (without going negative), subtract. } Greedy Choice
- Keep doing so until hit 0

88 → 63 → 38 → 13 → 3 → 2 → 1 → 0

-25 -25 -25 -10 -1 -1 -1

It provably always works for 25¢ 10¢ 5¢ 1¢
(How would you prove it?)

B. What about



?