

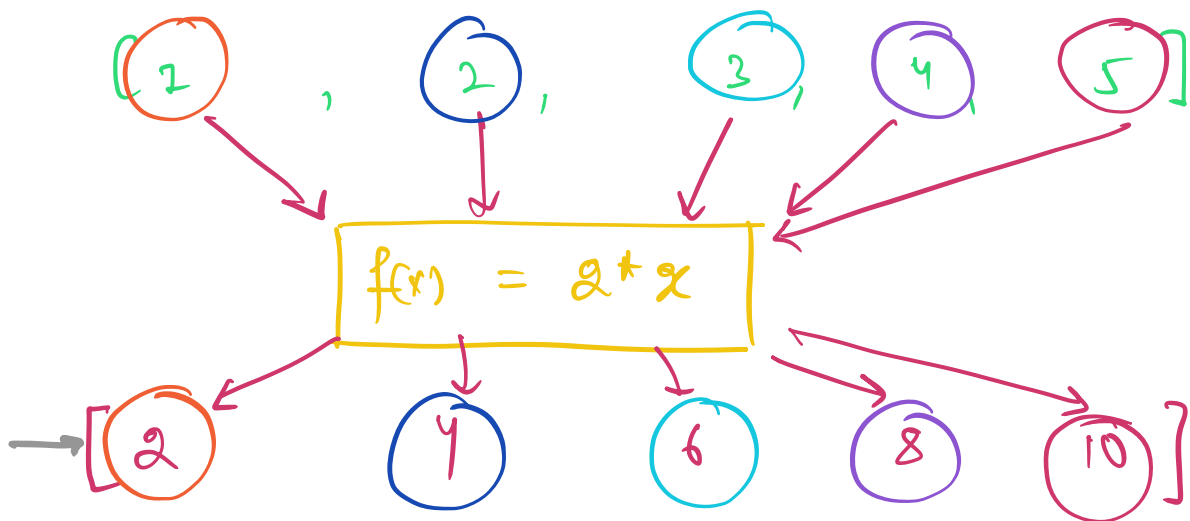
# → Functional Programming ←

## → Principles of FP

- ① Data should be separated from mutations.
- ② Treat variables as immutable. → unchangeable.
- ③ Treat f(x) as FCCs:

① subuilt python functions → MAP, FILTER, REDUCE, ZIP

→  $a = [1, 2, 3, 4, 5]$

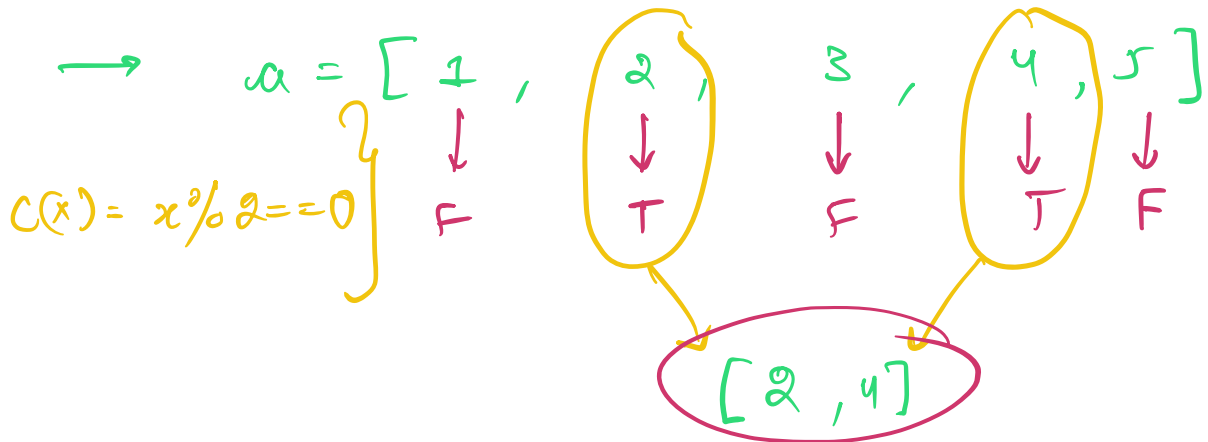


→ map can take multiple iterables.  
3 4 5 ...

(2)

## FILTER

→ filter out elements from a list on the basis of a condition.

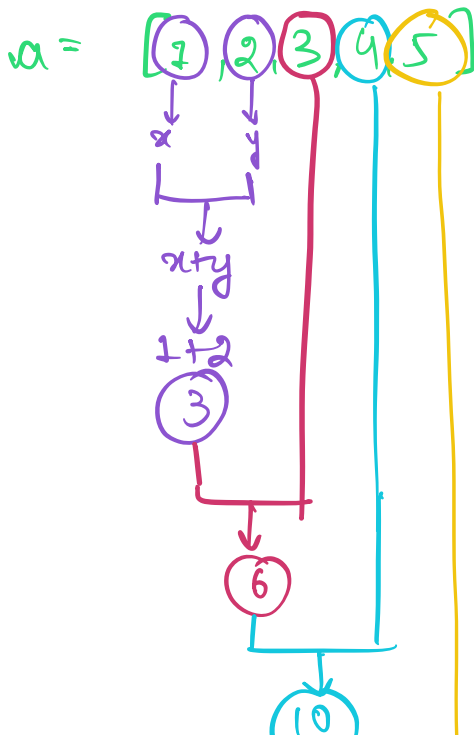


(3)

## REDUCE

→ is to reduce an iterable to a single value.

only in 2 variables



$$f(x, y) = x + y$$

