#1

any two — stop once we find a sum of k

$$[10, 15, 3, 7] \quad k = 17$$

True, $10 + 7 = 17$

$\Theta(n^2)$ — two for loops, checks for k — current

$\Theta(n \lg n)$ — Sort using comparison $\Theta(n \lg n)$
One for loop, but binary search for (k — current)
$\Theta(n \lg n)$
$\Theta(n \lg n + n \lg n) = \Theta(n \lg n)$

easier to search
for sum instead?
(largest to smallest)

~~I at thought that list will always be~~

If the list is always integers, and we know the range,
elements, we can maybe use counting sort / radix.

One pass? $\Theta(n)$ solution possible
trade space for speed? ⟶ need another DS w/ O(1) look up

for Loop, look up k — cur in DS ⟶ if found return true
other wise add ~~cur~~ cur to our DS.

$\Theta(n)$ time but also $\Theta(n)$ space