

Date: 1/1

Week #3

array  $S[n]$ ,  $n$  ints

$a + b + c = 0$ , Find all?  
(more than 1)

ex)  $S = [-1, 0, 1, 2, -1, -4]$

Solutions:

$[[ -1, 0, -1 ], [ -1, -1, 2 ]]$

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$S$   
Sort array  $\{-4, -1, -1, 0, 1, 2\}$

• choose  $a$  &  $b$

$$a = -4$$

$$+4 \quad +1 = 5$$

$$b = -1$$

$$n \quad n$$

$$c = -(a+b) = -a-b$$

• Search for value  $-(a+b)$  in array

if (found)

add to solution set

else

don't add to set

# Test Cases

Input	result
<del>Null</del>	Null pointer Null
[ ]	empty Null
[1, 2, 3]	incorrect Null
[-1, -1, 0]	[[ -1, -1, 0]] single solution
<del>[-3, 1, 2]</del> <del>[3, -6, 3]</del>	[[ -6, 3, 3], [1, 2, -3]] multiple solutions
[-3, 1, 2, 1, 2, -3]	[[ -3, 1, 2]] duplicate
[1, 2, 3, 4, 5, 6]	non solution NW1

