



VERY hard!

11% Acceptance rate!



LeetCode Contest #122 Q4

Divide Subarrays with Minimum Costs II

$k = 4$ $\text{dist} = 4$

2	1	7	3	9	6	5	8	1	2
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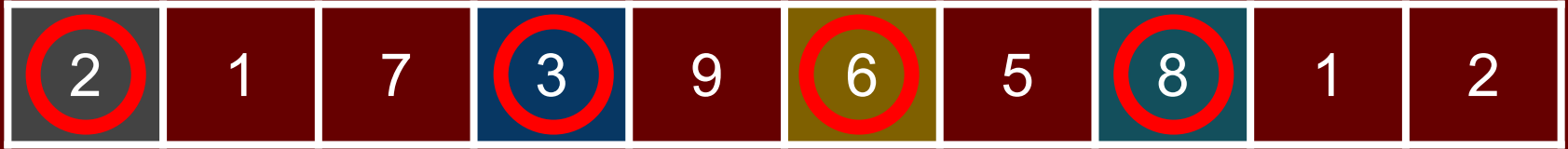
1. We only care about the first item of each subarray
2. The first subarray always starts at `nums[0]`

$k = 4$ $\text{dist} = 4$



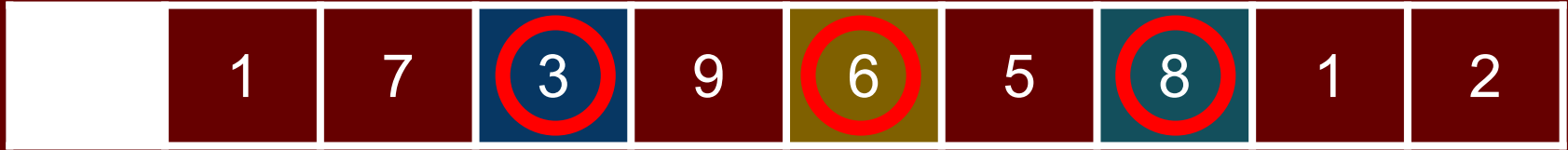
1. We only care about the first item of each subarray
2. The first subarray always starts at `nums[0]`

$k = 4$ $\text{dist} = 4$



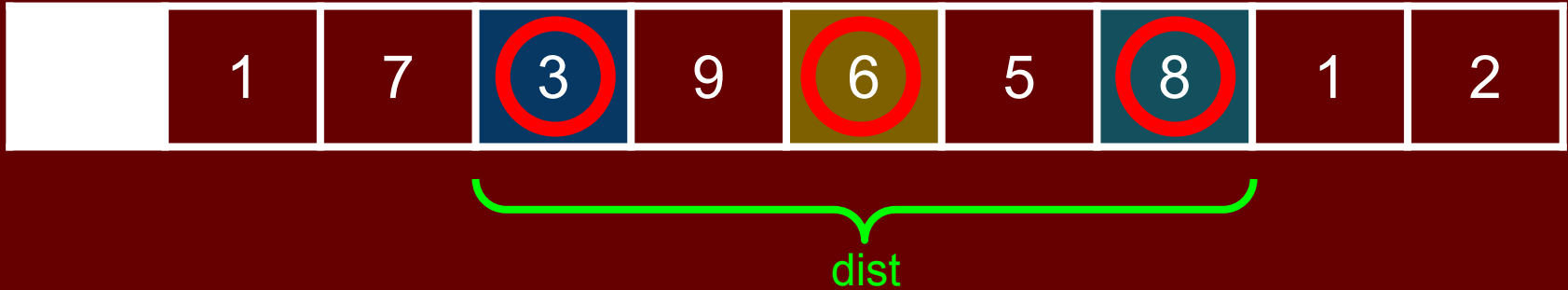
1. We only care about the first item of each subarray
2. The first subarray always starts at `nums[0]`

k = 4 3 dist = 4



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$k = 4$ 3 $\text{dist} = 4$



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$k = 3$ $dist = 4$

1	7	3	9	6	5	8	1	2
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The Sliding Window Problem

$k = 3$ $dist = 4$

1	7	3	9	6	5	8	1	2
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The Sliding Window Problem

$k = 3$ $dist = 4$

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*Find the k smallest
numbers within this window*

The Sliding Window Problem

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The Sliding Window Problem

$k = 3$ $dist = 4$

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$k = 3$ $dist = 4$

1	7	3	9	6	5	8	1	2
---	---	---	---	---	---	---	---	---



1 3 6 7 9

$k = 3$ $dist = 4$

1	7	3	9	6	5	8	1	2
---	---	---	---	---	---	---	---	---



1 3 6 7 9

$k = 3$ $dist = 4$

1	7	3	9	6	5	8	1	2
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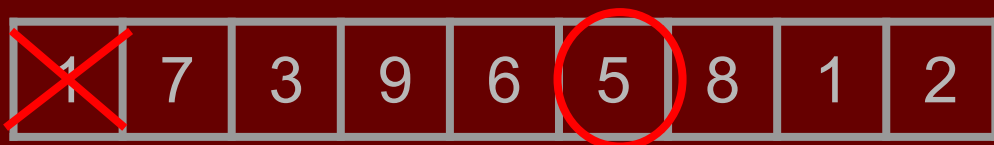
$$1 \ 3 \ 6 \ 7 \ 9 = 10$$

$k = 3$ $dist = 4$



$$\boxed{1 \ 3 \ 6} \ 7 \ 9 = 10$$

$k = 3$ $dist = 4$

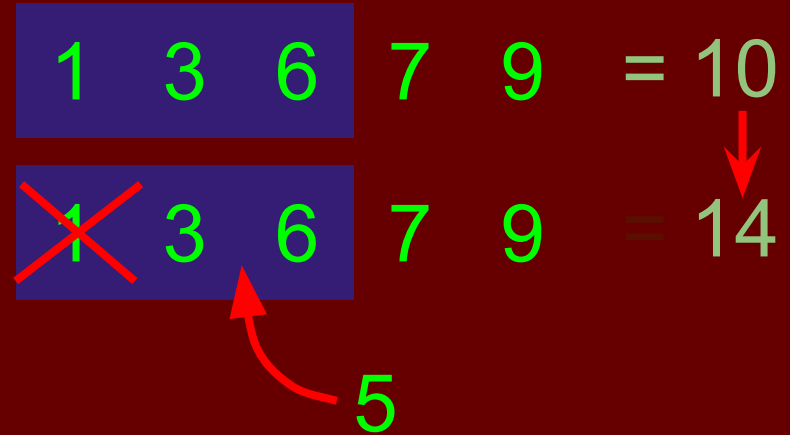


$$1 \quad 3 \quad 6 \quad 7 \quad 9 = 10$$

$$\cancel{1} \quad 3 \quad 6 \quad 7 \quad 9$$

5

$k = 3$ $dist = 4$



We removed 1 from the Blue zone, and added 5 to the Blue zone.

Hence the new sum is $10 - 1 + 5 = 14$

$k = 3$ $dist = 4$

1	7	3	9	6	5	8	1	2
---	---	---	---	---	---	---	---	---



1	3	6	7	9	= 10
---	---	---	---	---	------

3	5	6	7	9	= 14
---	---	---	---	---	------

$k = 3$ $dist = 4$



1	3	6	7	9	= 10
---	---	---	---	---	------

3	5	6	7	9	= 14
---	---	---	---	---	------

3	5	6	7	9
---	---	---	--------------	---

8

$k = 3$ $dist = 4$



1	3	6	7	9	= 10
---	---	---	---	---	------



3	5	6	7	9	= 14
---	---	---	---	---	------



3	5	6	7	9	= 14
---	---	---	--------------	---	------

8

No changes in Blue zone, so sum remains 14

$k = 3$ $dist = 4$

1	7	3	9	6	5	8	1	2
---	---	---	---	---	---	---	---	---



1	3	6	7	9	= 10
---	---	---	---	---	------



3	5	6	7	9	= 14
---	---	---	---	---	------



3	5	6	8	9	= 14
---	---	---	---	---	------

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