



# DIVERSITY IN TECH



SEPTEMBER 23RD, 5-6PM

TICKNOR LOUNGE, BOYLSTON HALL



lunch this Fri 9/25

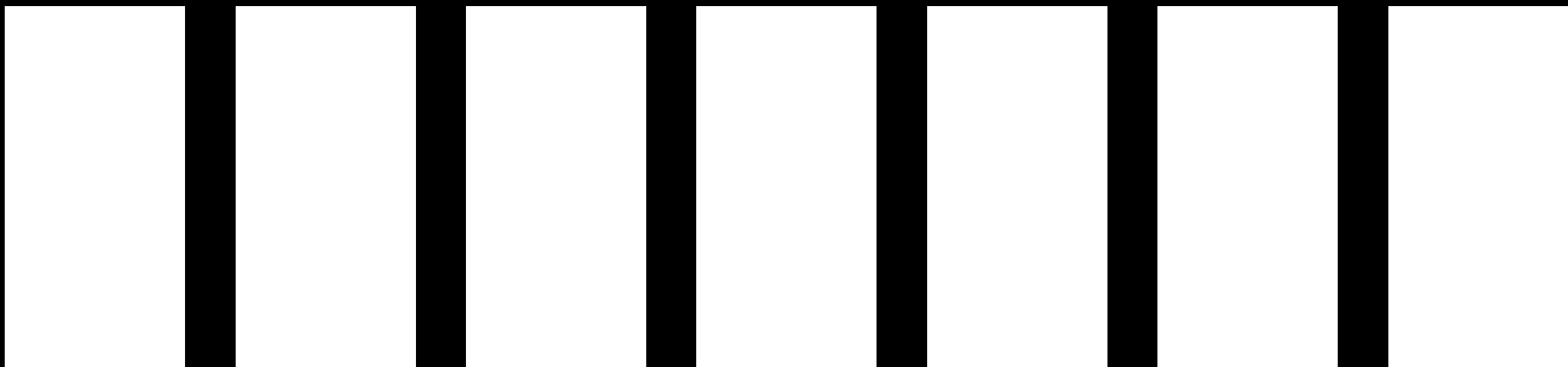
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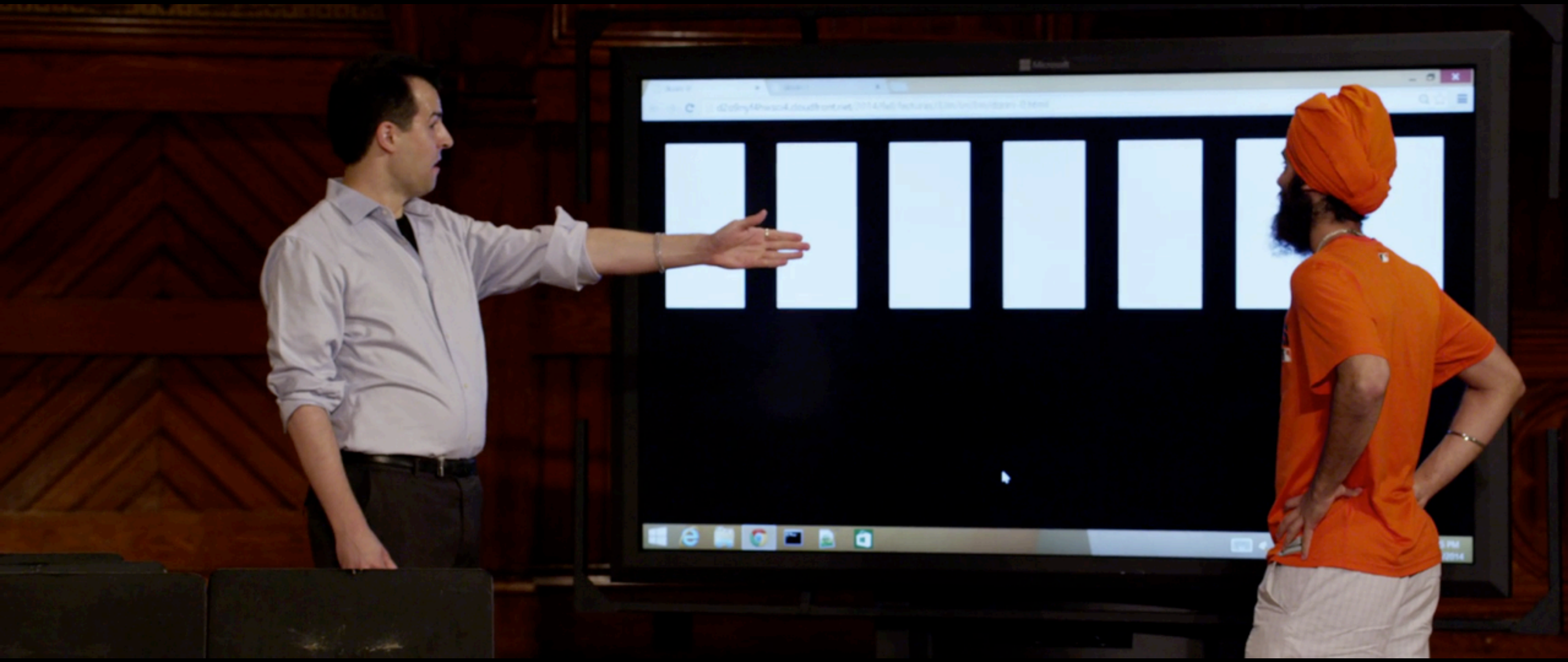
lecture this Wed 9/23

online only

problem set 2



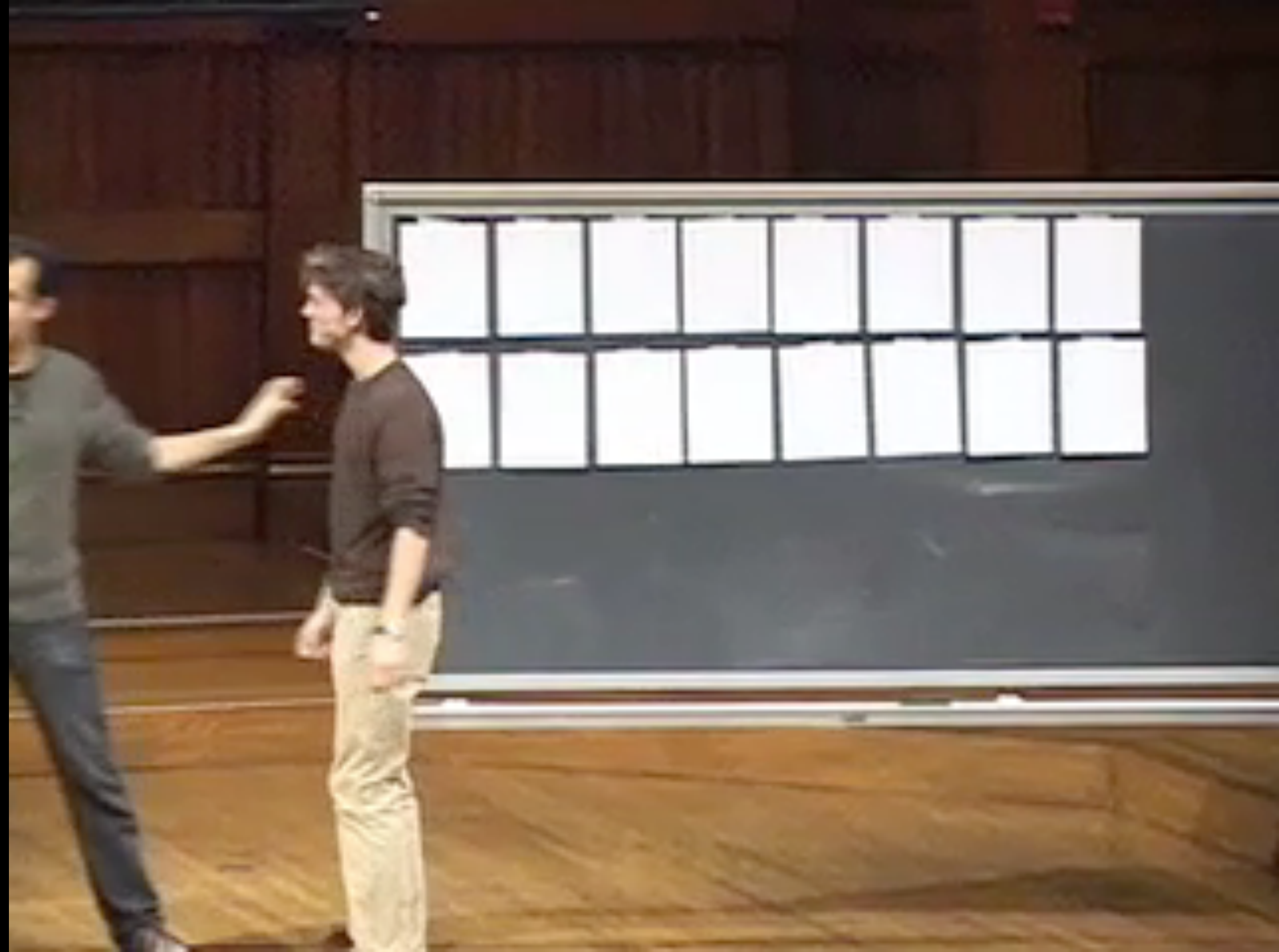












# *Examination Book*



Name \_\_\_\_\_

Subject \_\_\_\_\_

Instructor \_\_\_\_\_

Section \_\_\_\_\_ Class \_\_\_\_\_

Date \_\_\_\_\_ Book No. \_\_\_\_\_

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4

2

6

8

1

3

7

5

bubble sort

selection sort



insertion sort

bubble sort

$$(n - 1)$$

$$(n - 1) + (n - 2)$$

$$(n-1) + (n-2) + \dots + 1$$



$$(n-1) + (n-2) + \dots + 1$$

$$n(n-1)/2$$

$$(n - 1) + (n - 2) + \dots + 1$$

$$n(n - 1)/2$$

$$(n^2 - n)/2$$

$$(n - 1) + (n - 2) + \dots + 1$$

$$n(n - 1)/2$$

$$(n^2 - n)/2$$

$$n^2/2 - n/2$$

1,000,000

$$n^2/2 - n/2$$



$$n^2/2 - n/2$$

$$1,000,000^2/2 - 1,000,000/2$$

$$n^2/2 - n/2$$

$$1,000,000^2/2 - 1,000,000/2$$

$$500,000,000,000 - 500,000$$

$$n^2/2 - n/2$$

$$1,000,000^2/2 - 1,000,000/2$$

$$500,000,000,000 - 500,000$$

$$499,999,500,000$$

$$n^2/2 - n/2$$

$$O(n^2)$$

*O*



$O(n^2)$

$O(n \log n)$

$O(n)$

$O(\log n)$

$O(1)$

...

$$O(n^2)$$

$$O(n \log n)$$

$$O(n)$$

$$O(\log n)$$

$$O(1)$$

...

$O(n^2)$

$O(n \log n)$

$O(n)$

$O(\log n)$

$O(1)$

...

$$O(n^2)$$

$$O(n \log n)$$

$$O(n)$$

$$O(\log n)$$

$$O(1)$$

...

$O(n^2)$

$O(n \log n)$

$O(n)$

$O(\log n)$

$O(1)$

...

Ω

$$\Omega(n^2)$$

$$\Omega(n \log n)$$

$$\Omega(n)$$

$$\Omega(\log n)$$

$$\Omega(1)$$

...

$$\Omega(n^2)$$

$$\Omega(n \log n)$$

$$\Omega(n)$$

$$\Omega(\log n)$$

$$\Omega(1)$$

...



$$\Omega(n^2)$$

$$\Omega(n \log n)$$

$$\Omega(n)$$

$$\Omega(\log n)$$

$$\Omega(1)$$

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