

This is CS50

cs50.yale.edu



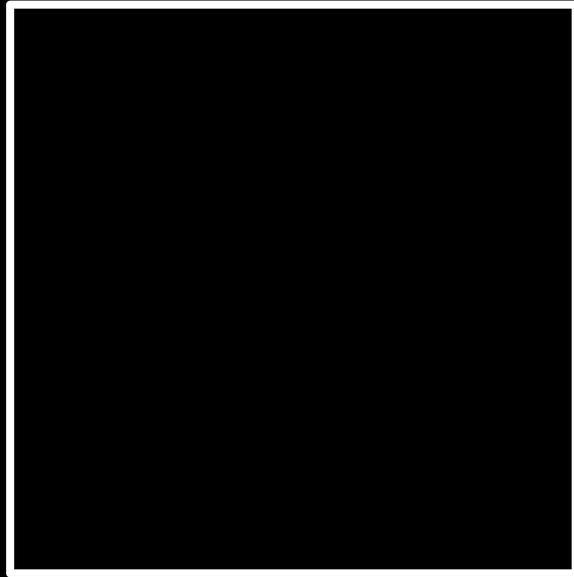


2/3

of CS50 students have never taken CS before

what ultimately matters in this course is not so much where
you end up relative to your classmates but where
you end up relative to yourself at the start

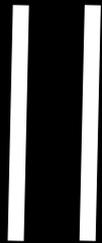
input →

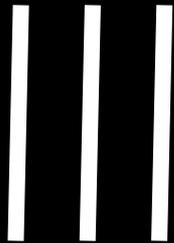


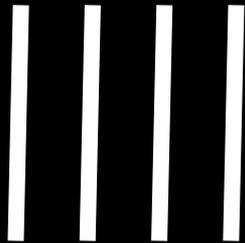
→ output

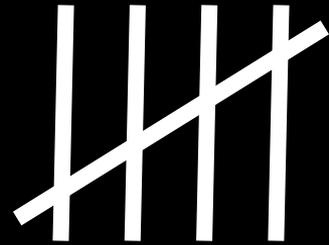
representation

|











0 1 2 3 4 5 6 7 8 9

0 1

1 2 3

A

65

ASCII

A B C D E F G H I ...

65 66 67 68 69 70 71 72 73 ...

72

73

33

H

72

I

73

33

H

72

I

73

!

33

H

72



I

73



!

33



abstraction



72

73

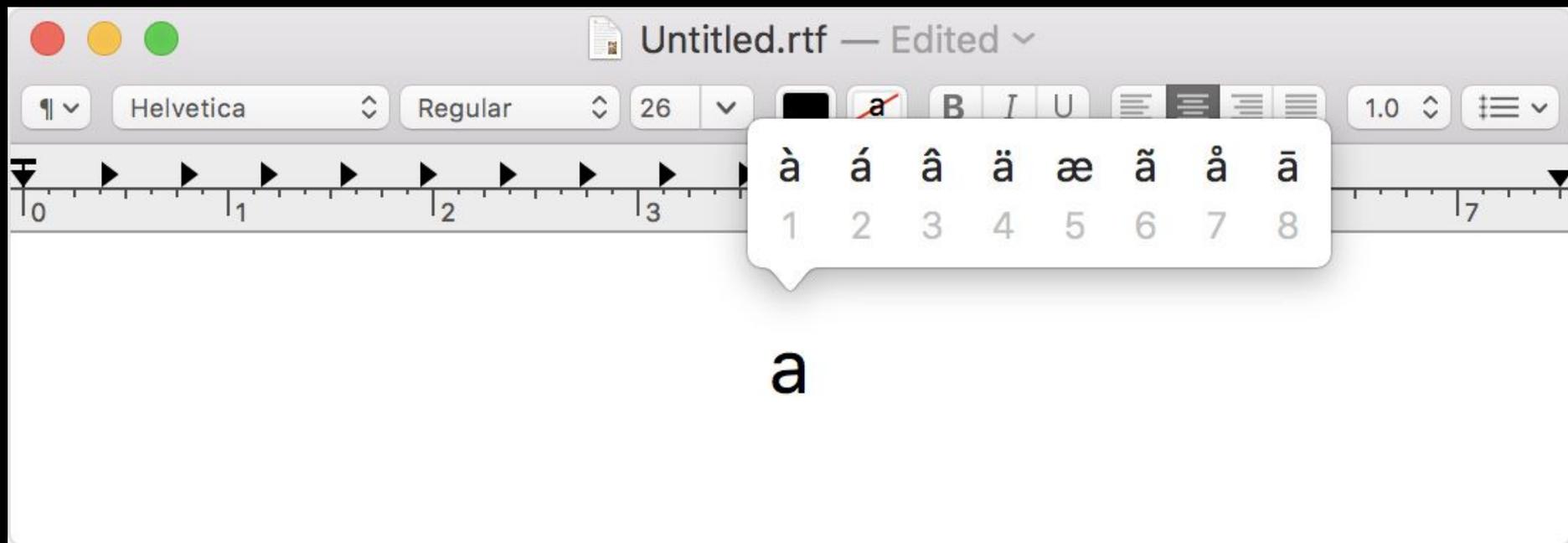
33

H

I

!

~ `	! 1	@ 2	# 3	\$ 4	% 5	^ 6	& 7	* 8	(9) 0	- _	+ =	← Backspace
Tab ↔	Q	W	E	R	T	Y	U	I	O	P	{ [}]	 \ _
Caps Lock ↑	A	S	D	F	G	H	J	K	L	: ;	" '	Enter ↵	
Shift ↑	Z	X	C	V	B	N	M	< ,	> .	? /	Shift ↑		
Ctrl	Win Key	Alt							Alt	Win Key	Menu	Ctrl	



a



Search

FAVORITES



SMILEYS & PEOPLE



Unicode

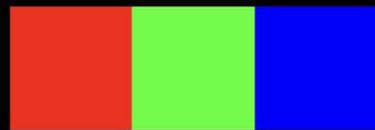


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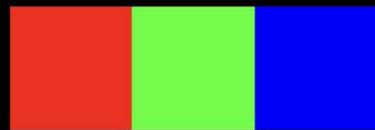
RGB

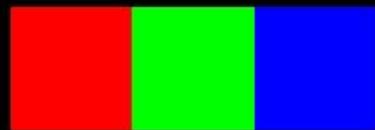


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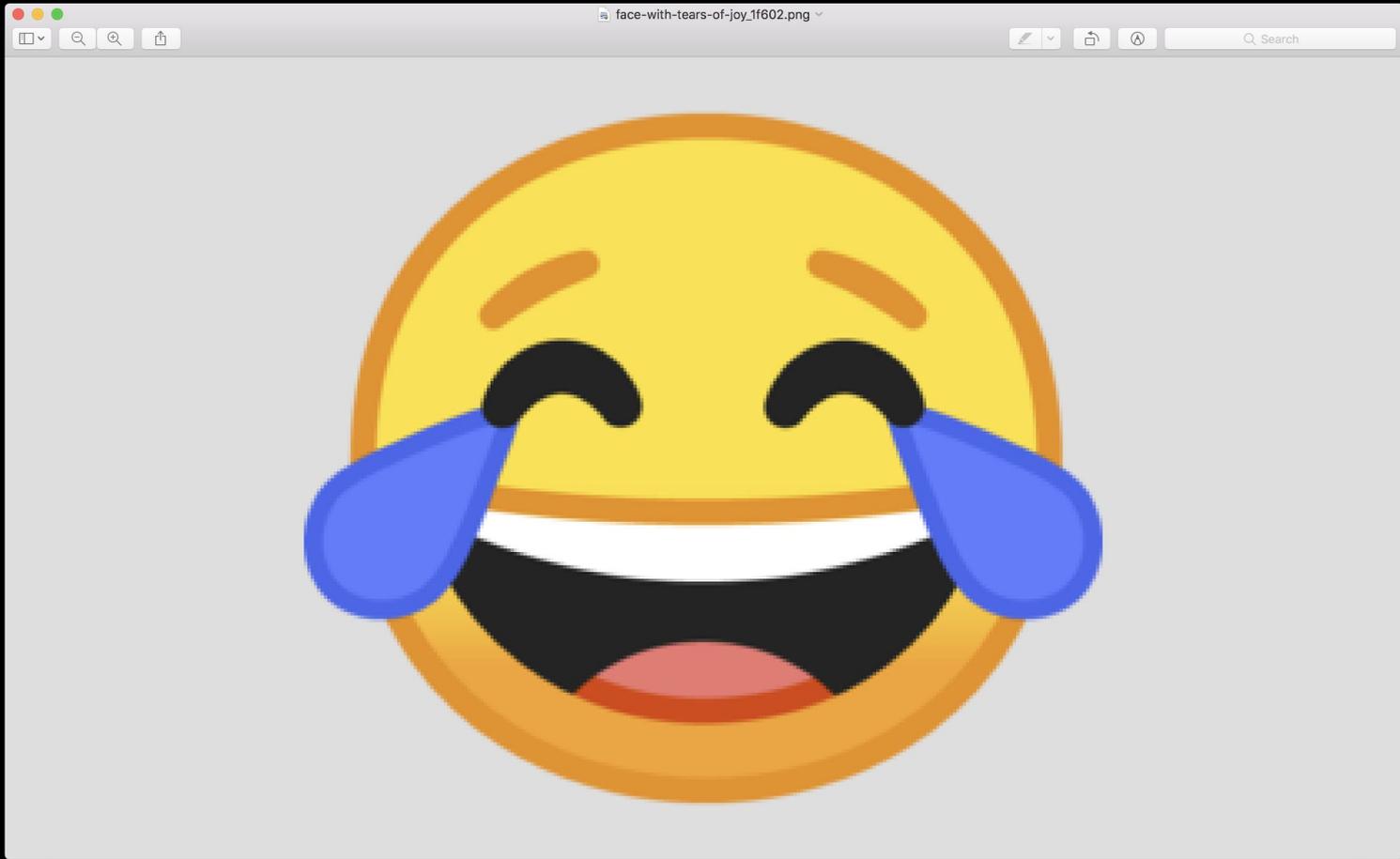


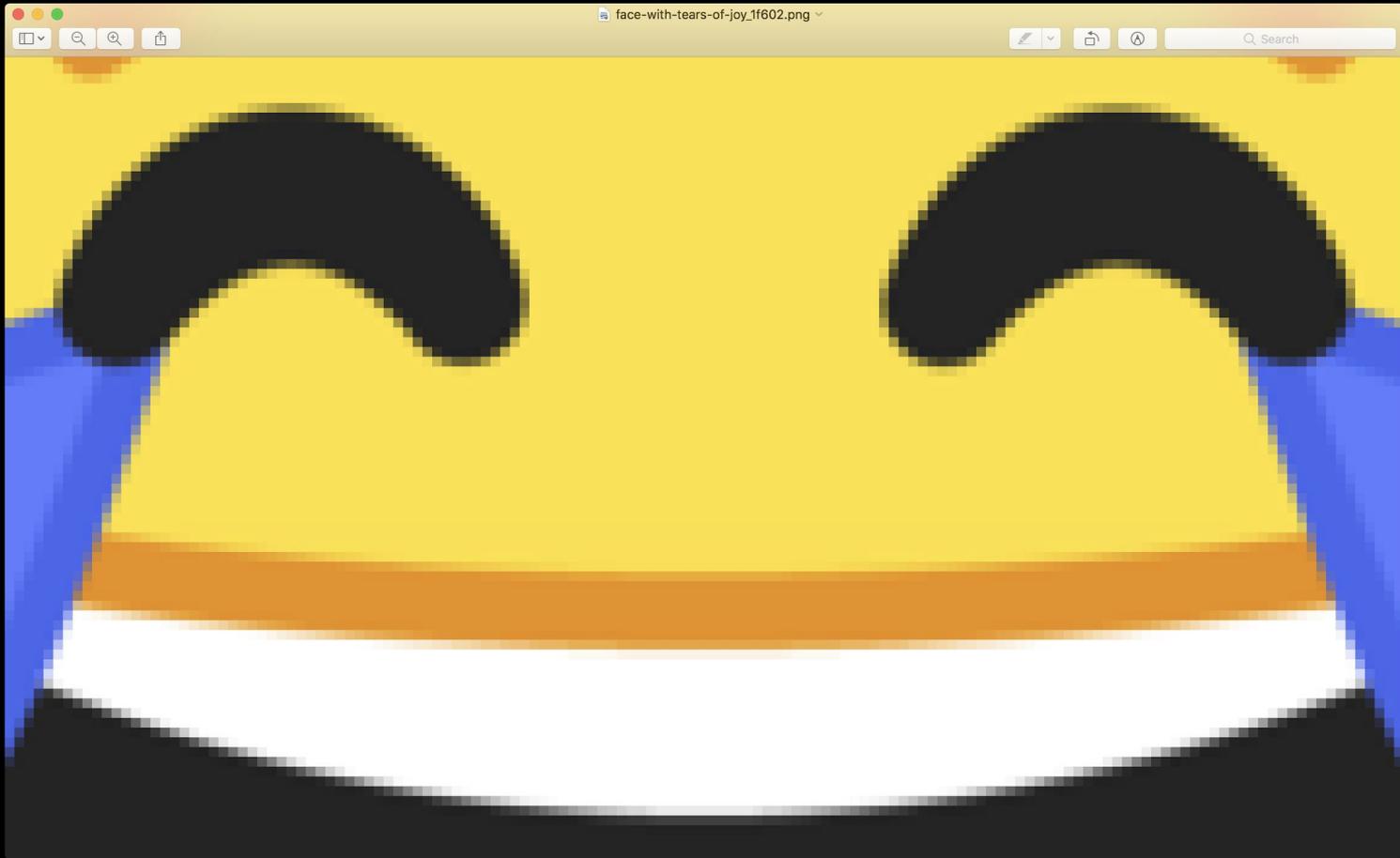
face-with-tears-of-joy_1f602.png

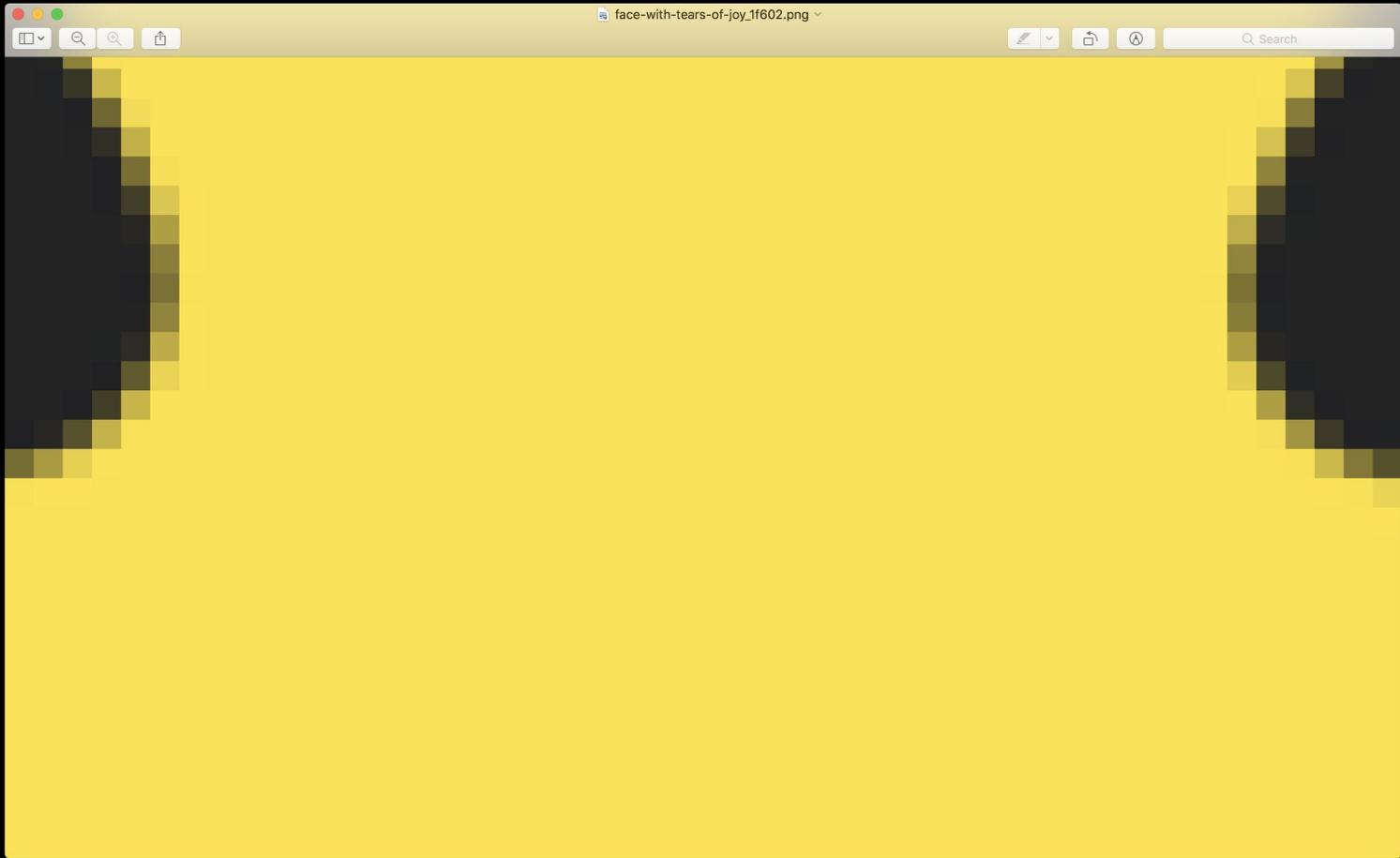


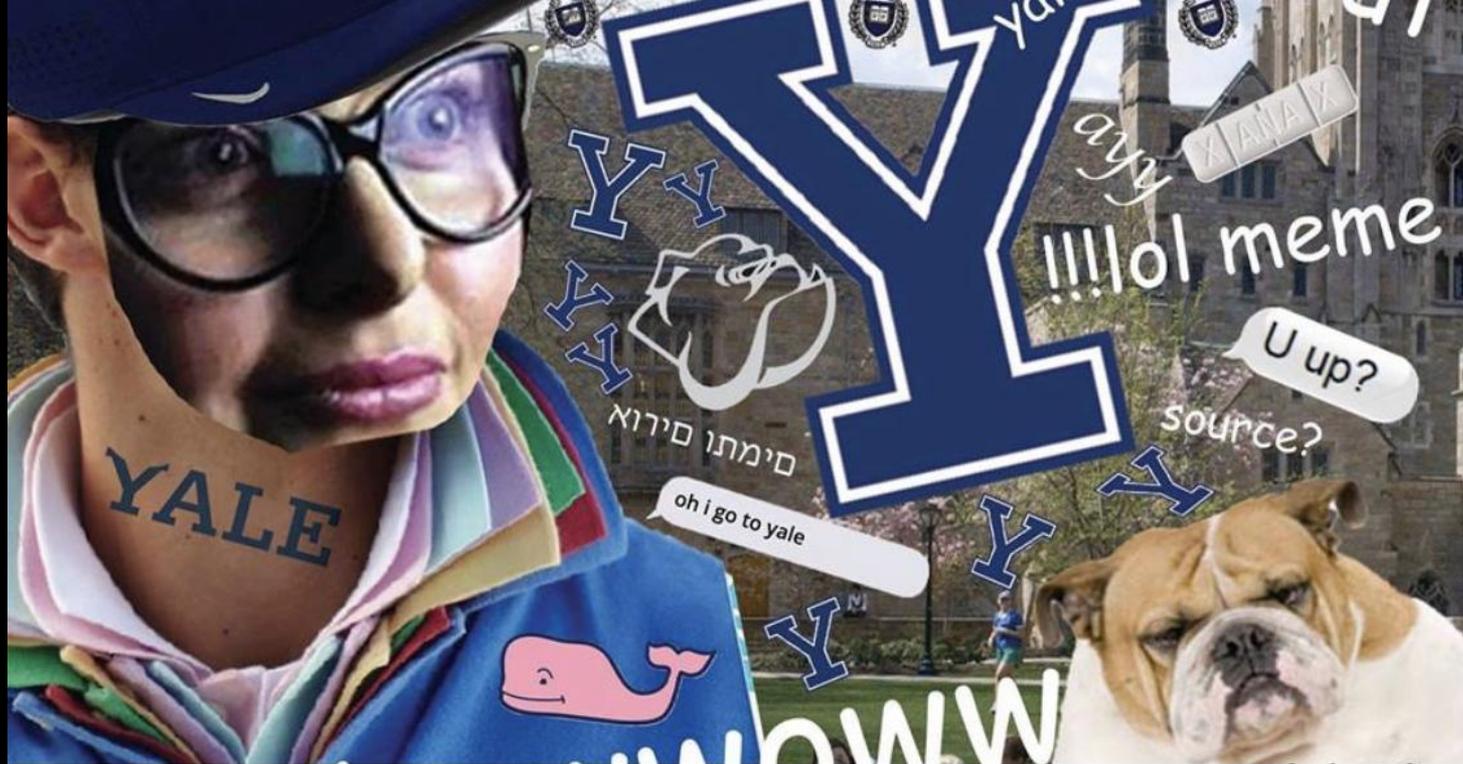
Search



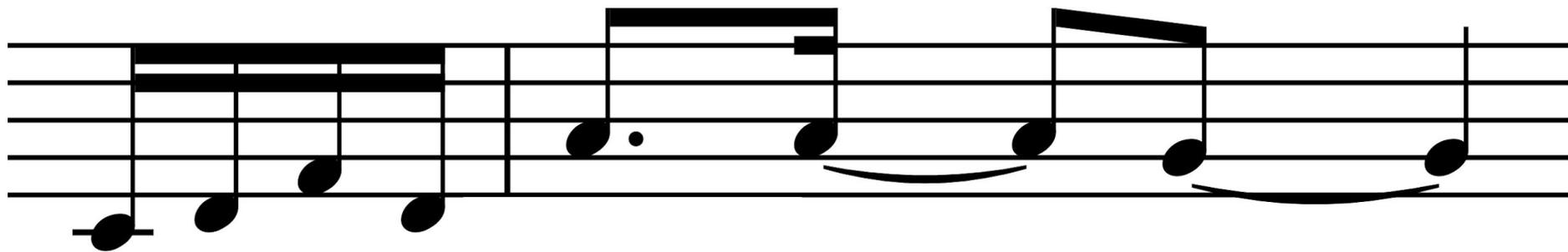




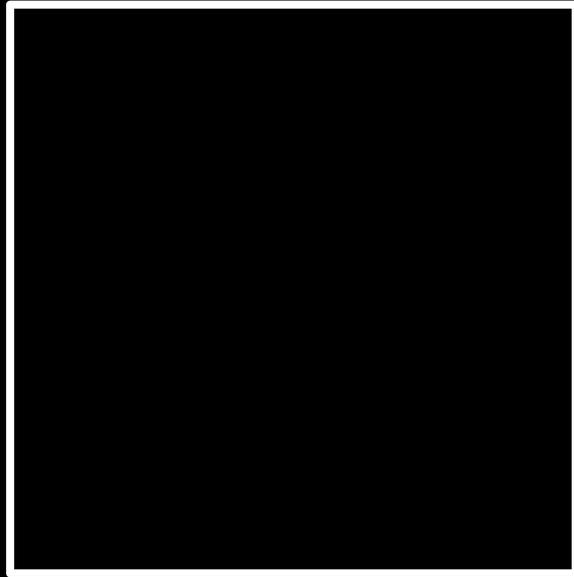




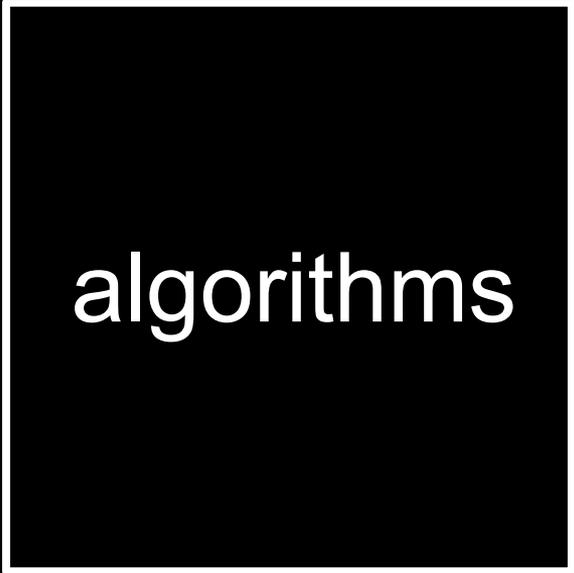
Yale Memes for Special Snowflake Teens >



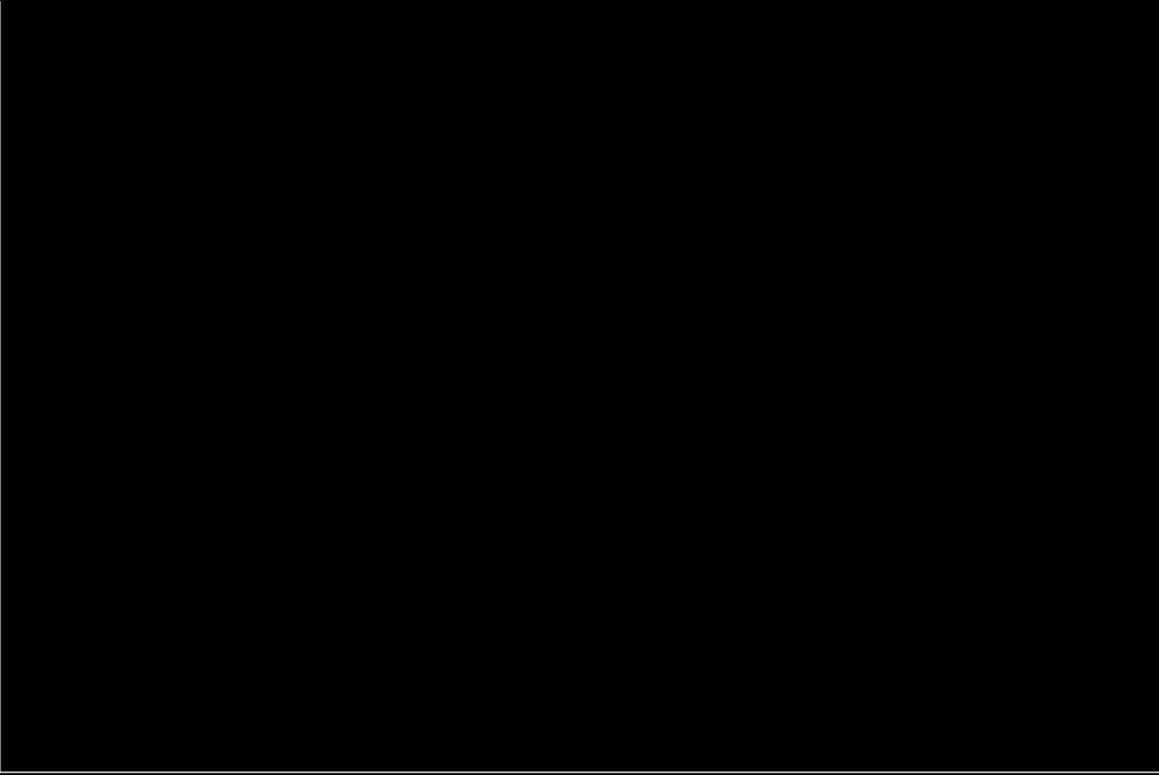
input →



→ output

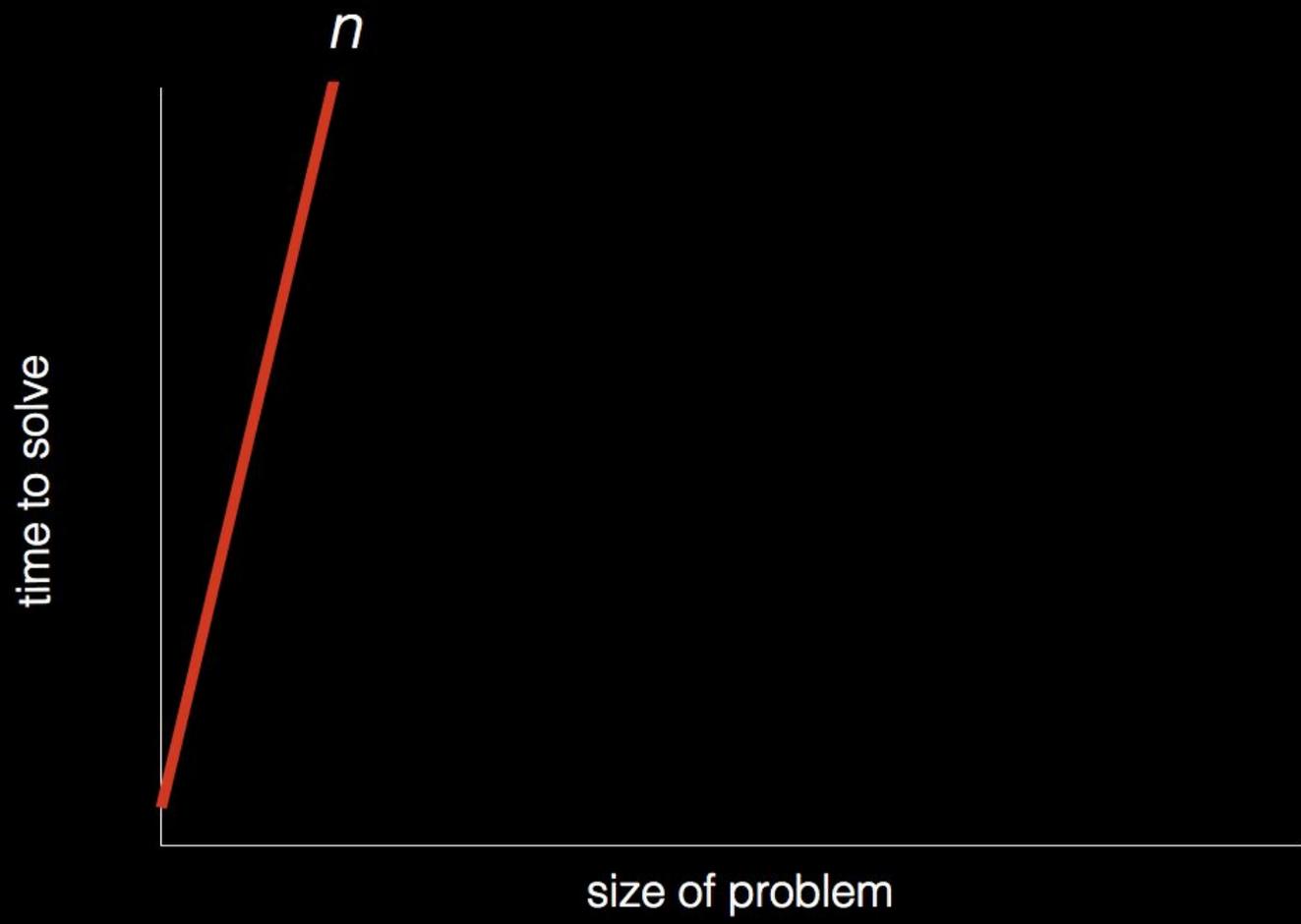


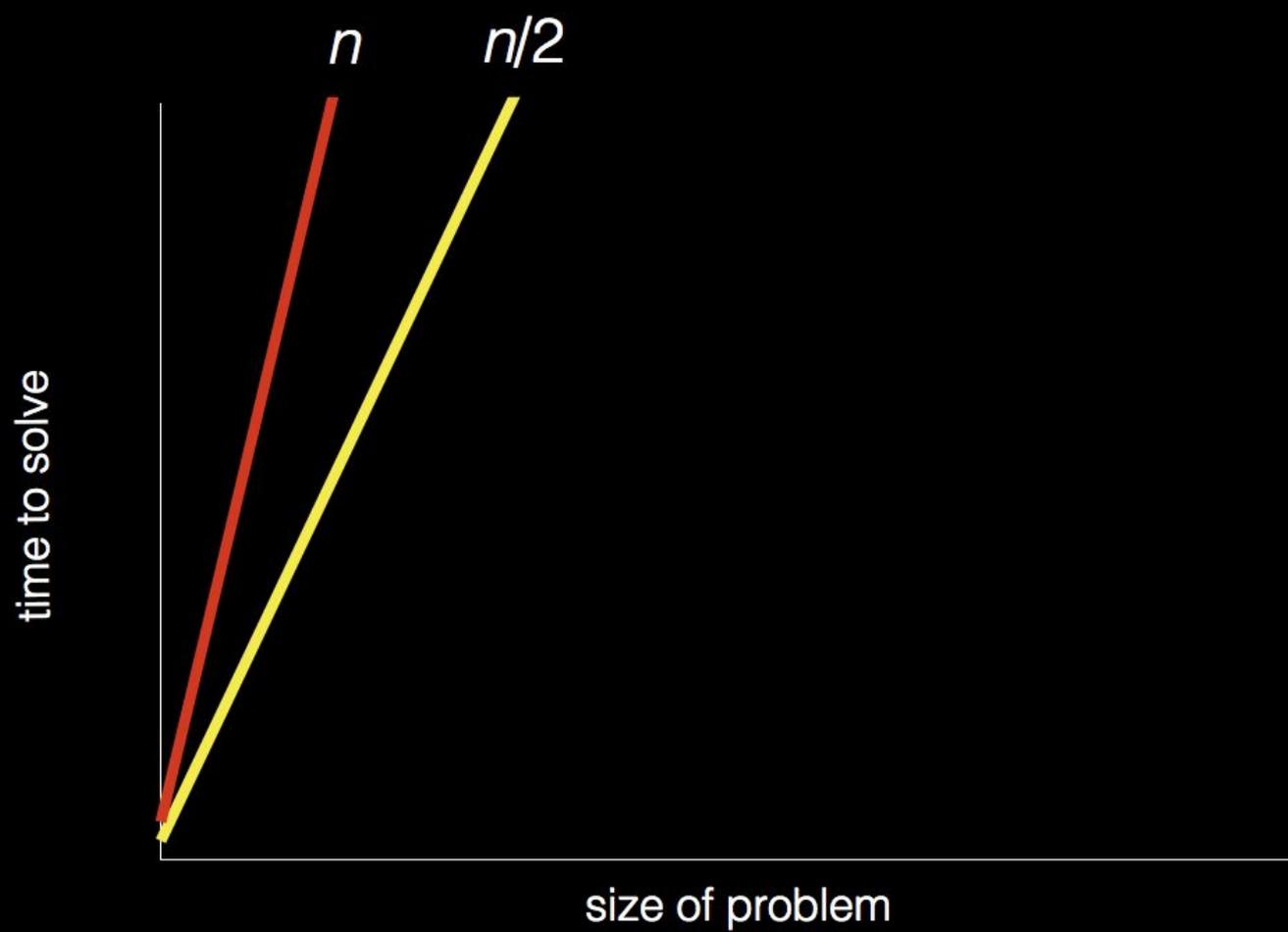
algorithms

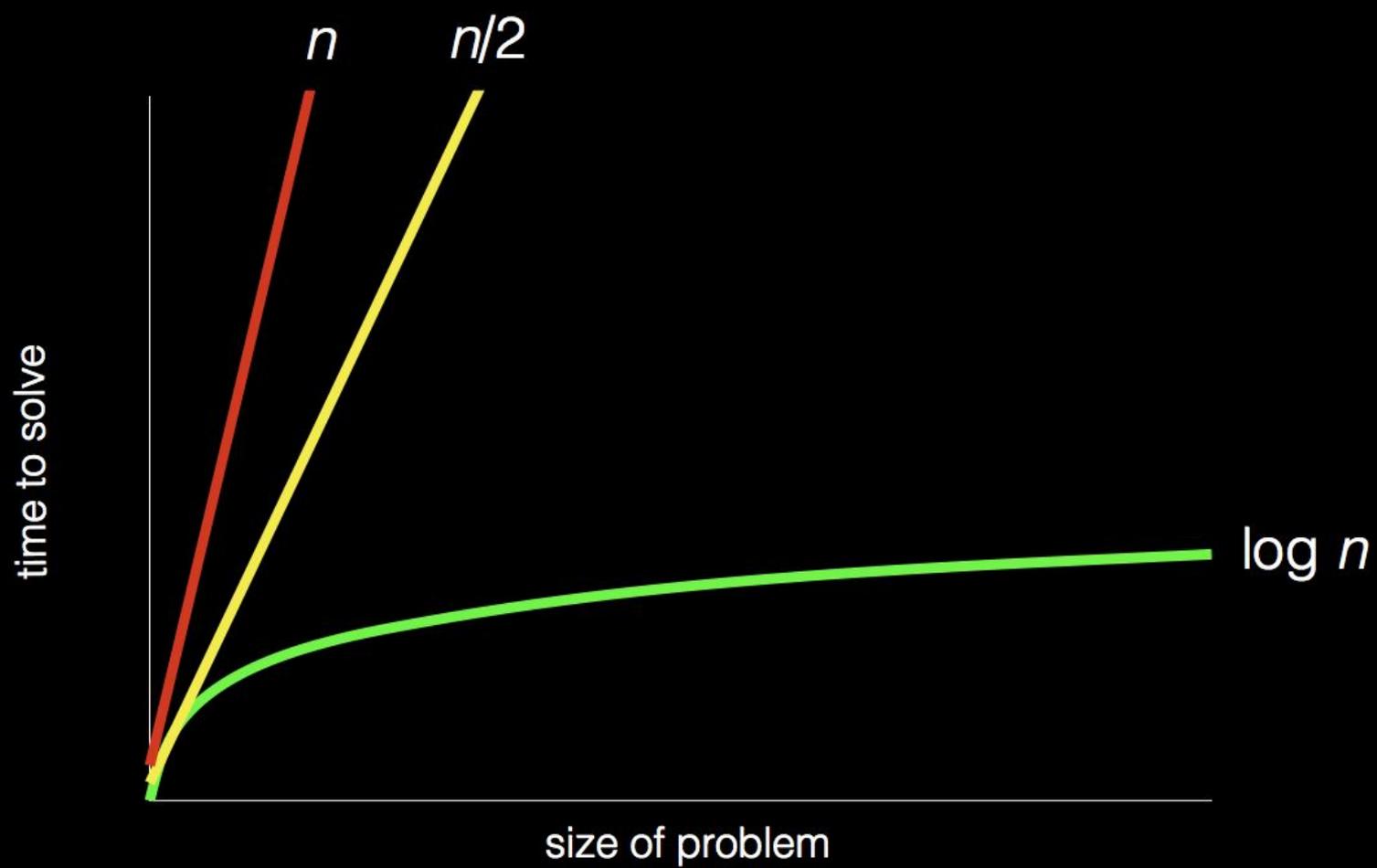


time to solve

size of problem







pseudocode

```
1 Pick up phone book
2 Open to middle of phone book
3 Look at names
4 If Smith is among names
5     Call Mike
6 Else if Smith is earlier in book
7     Open to middle of left half of book
8     Go back to line 3
9 Else if Smith is later in book
10    Open to middle of right half of book
11    Go back to line 3
12 Else
13    Quit
```

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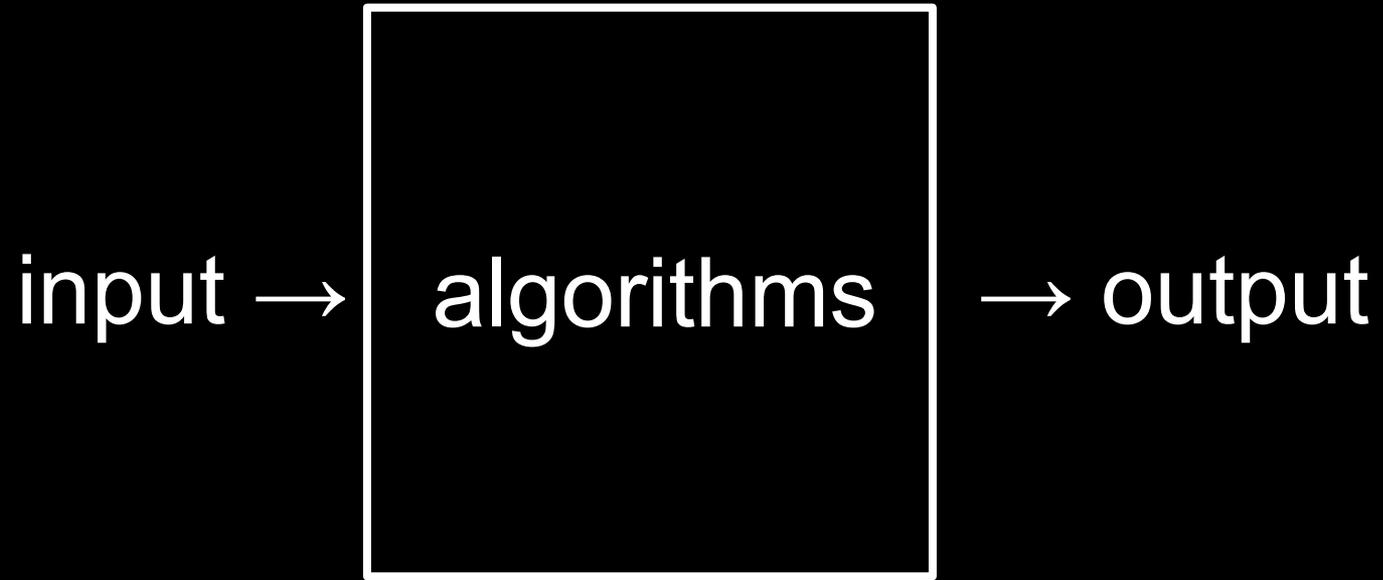
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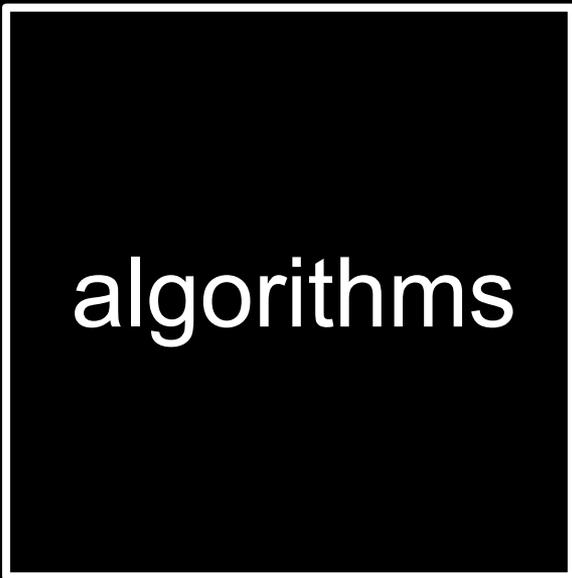
- functions
- conditions
- Boolean expressions
- loops

- functions
- conditions
- Boolean expressions
- loops
- variables
- threads
- events
- ...





hello, world

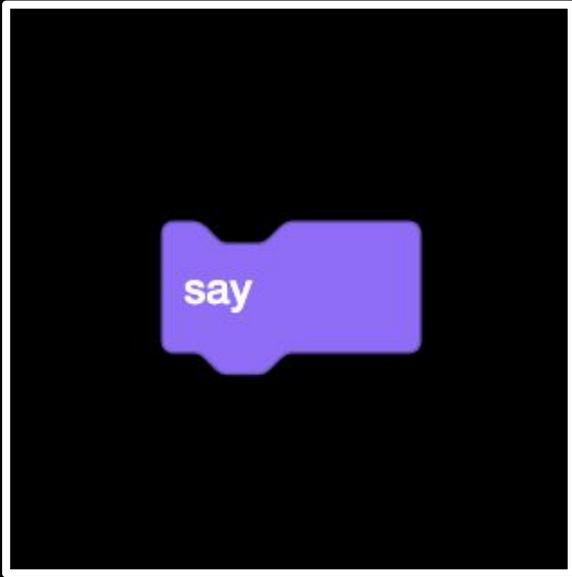


algorithms



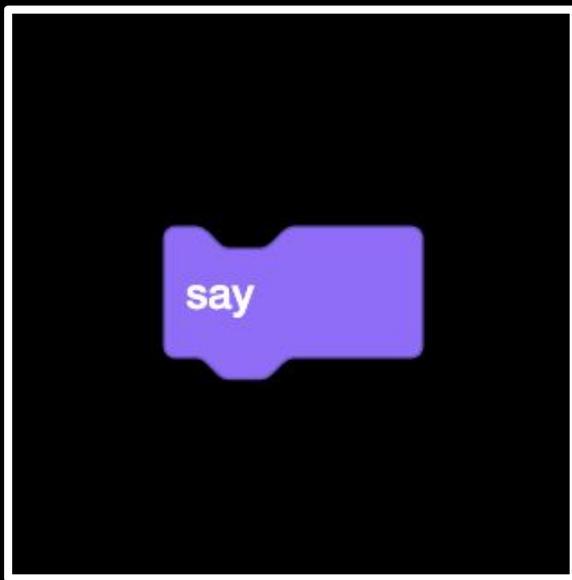
output

hello, world

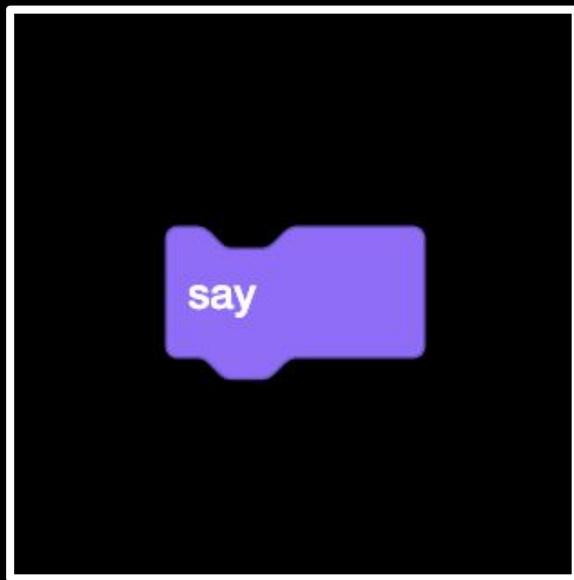


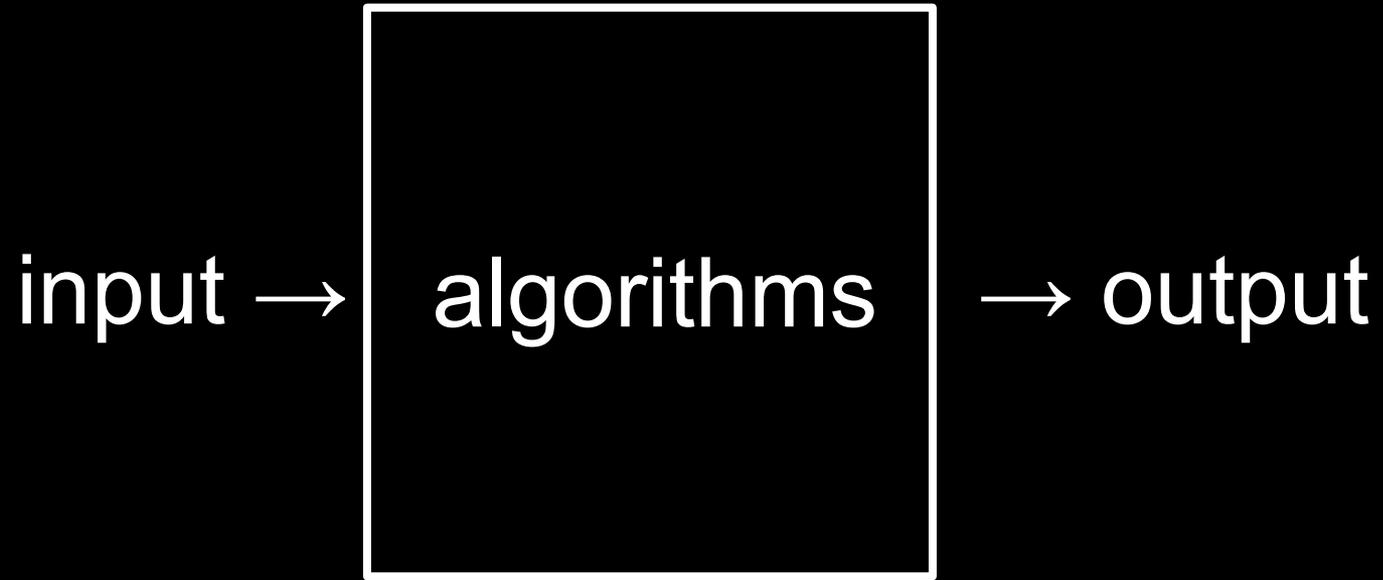
output

hello, world



hello, world





What's your name?

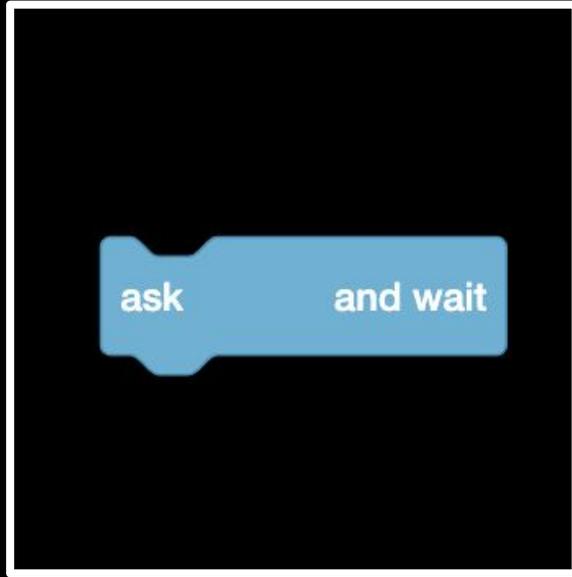


algorithms



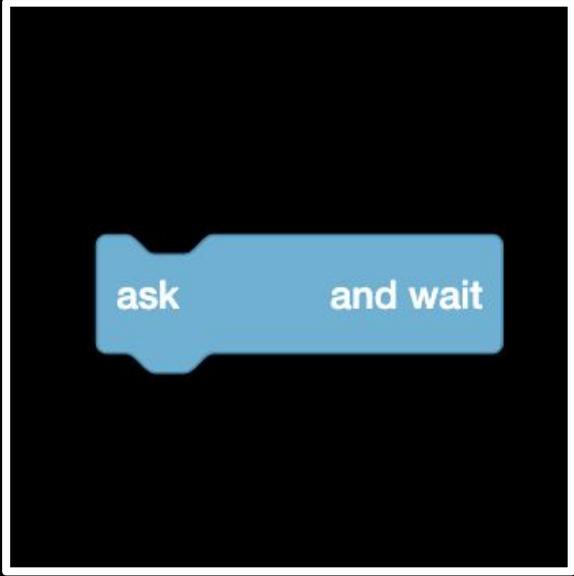
output

What's your name?

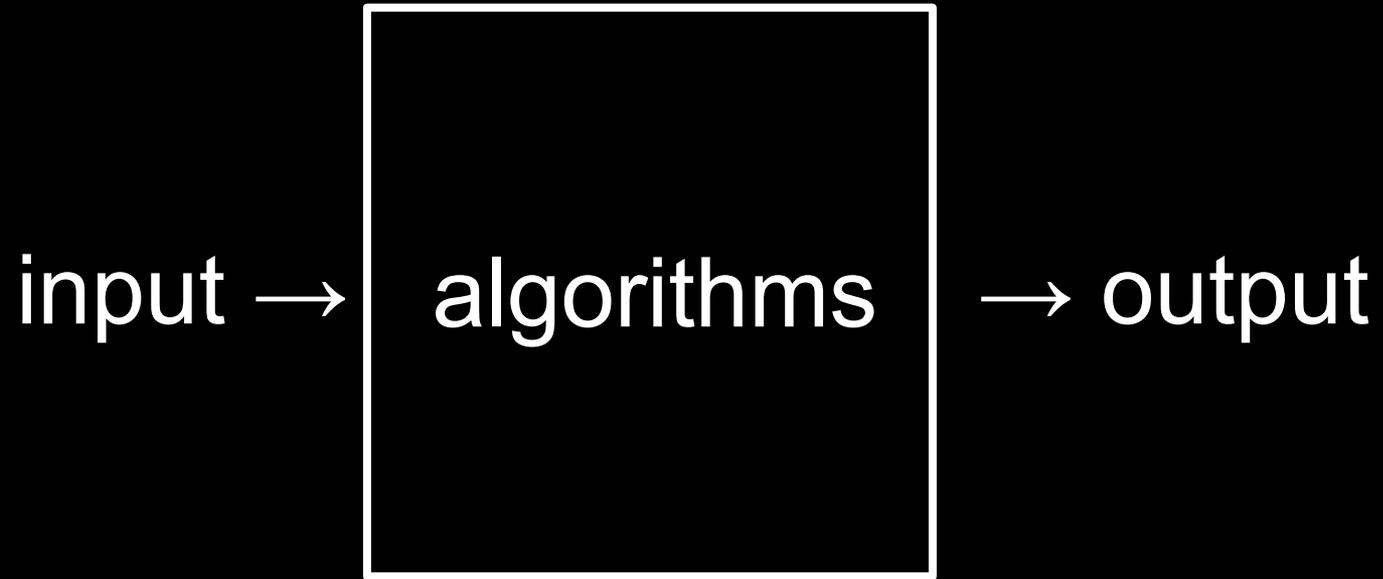


→ output

What's your name?

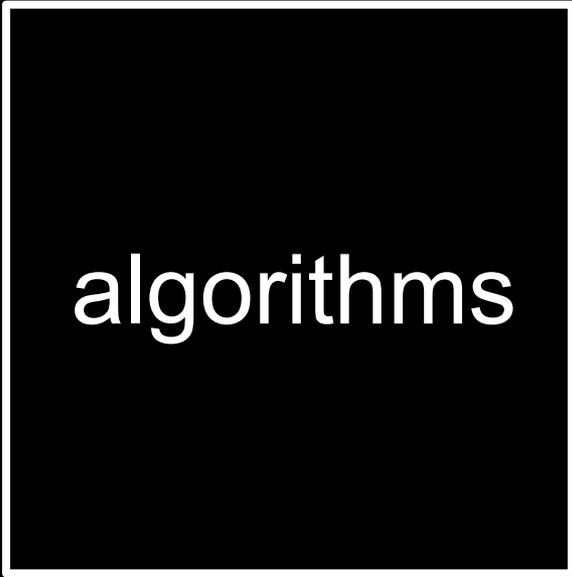


answer



hello,

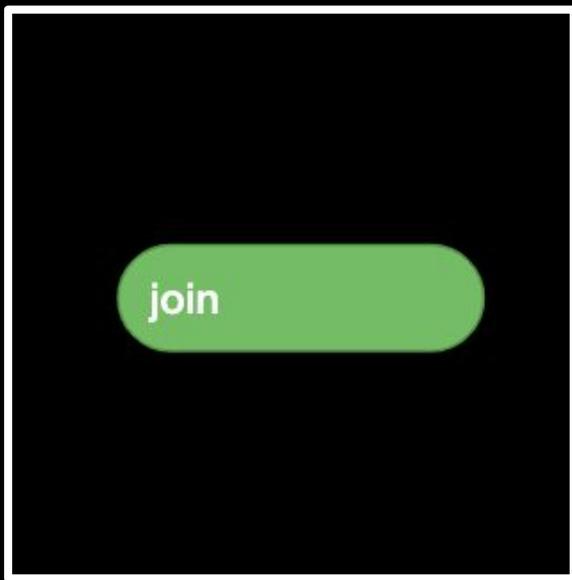
answer



output

hello,

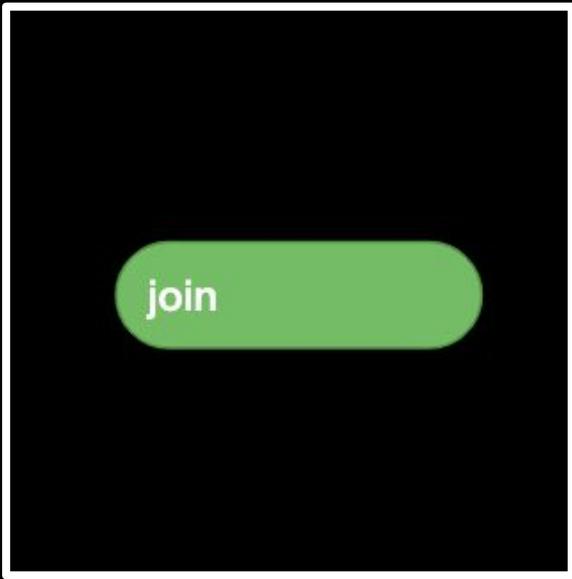
answer



output

hello,

answer



hello, David



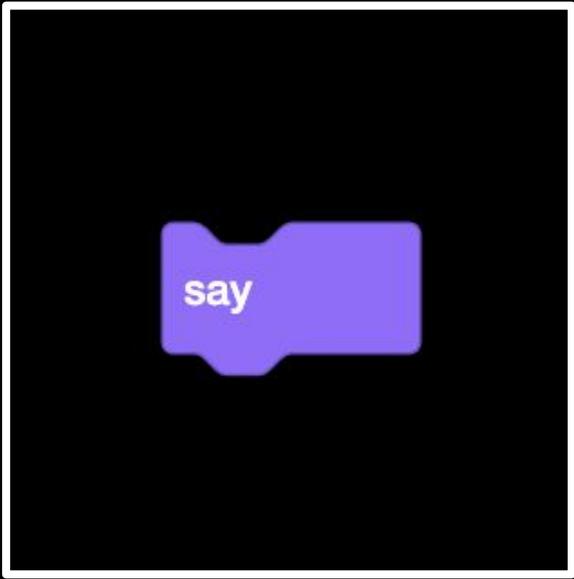
hello, David



hello, David



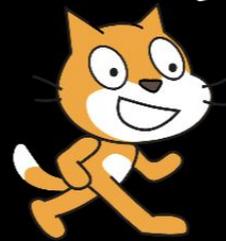
hello, David



say



hello, David



hello, David









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