

This is CS50

cs50.yale.edu





2/3

of CS50 students have never taken CS before

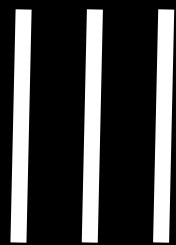
what ultimately matters in this course is not so much where
you end up relative to your classmates but where
you end up relative to yourself at the start

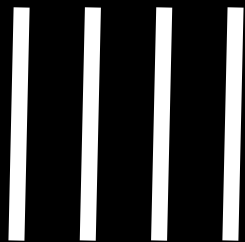


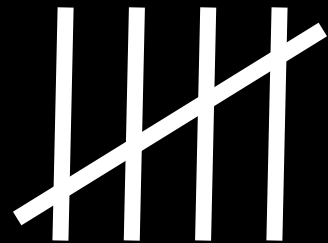
representation

!

||









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

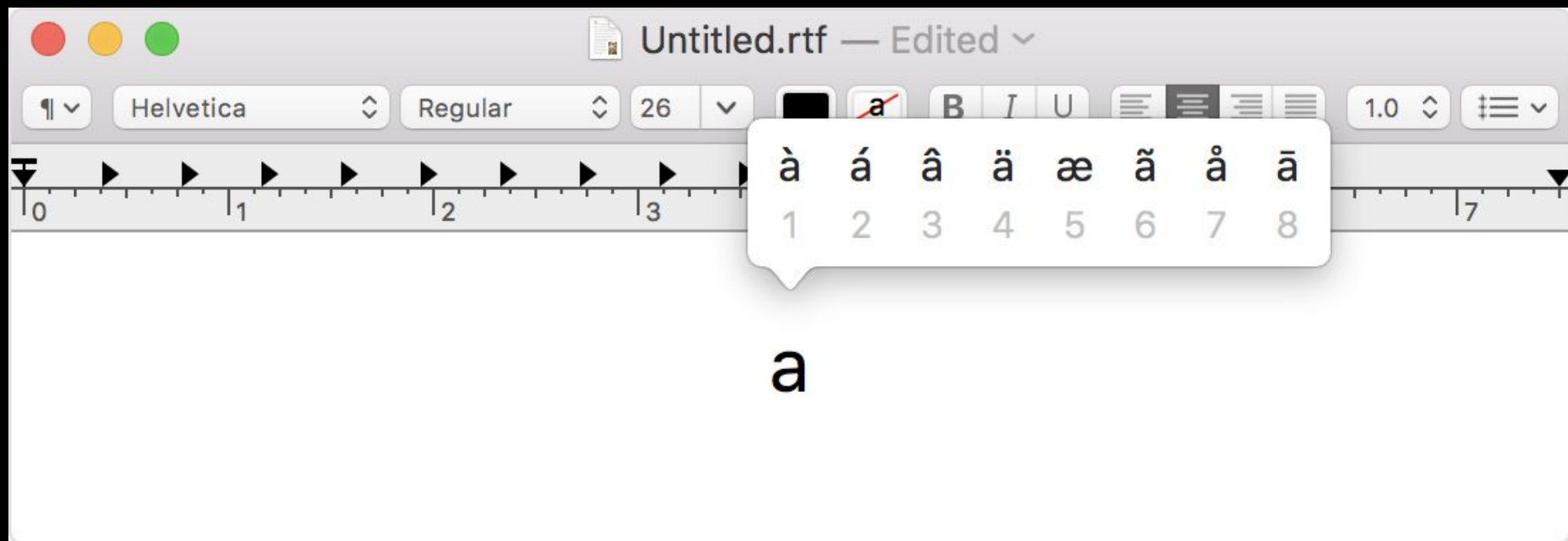
33

H

I

!

~ `	1 !	2 @	3 #	4 \$	5 %	6 ^	7 &	8 *	(())	- _	+ =	← 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





Search

FAVORITES



SMILEYS & PEOPLE



Unicode



128514

11111011000000010



RGB

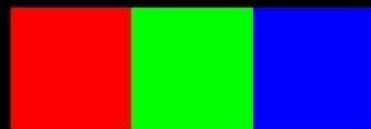


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73

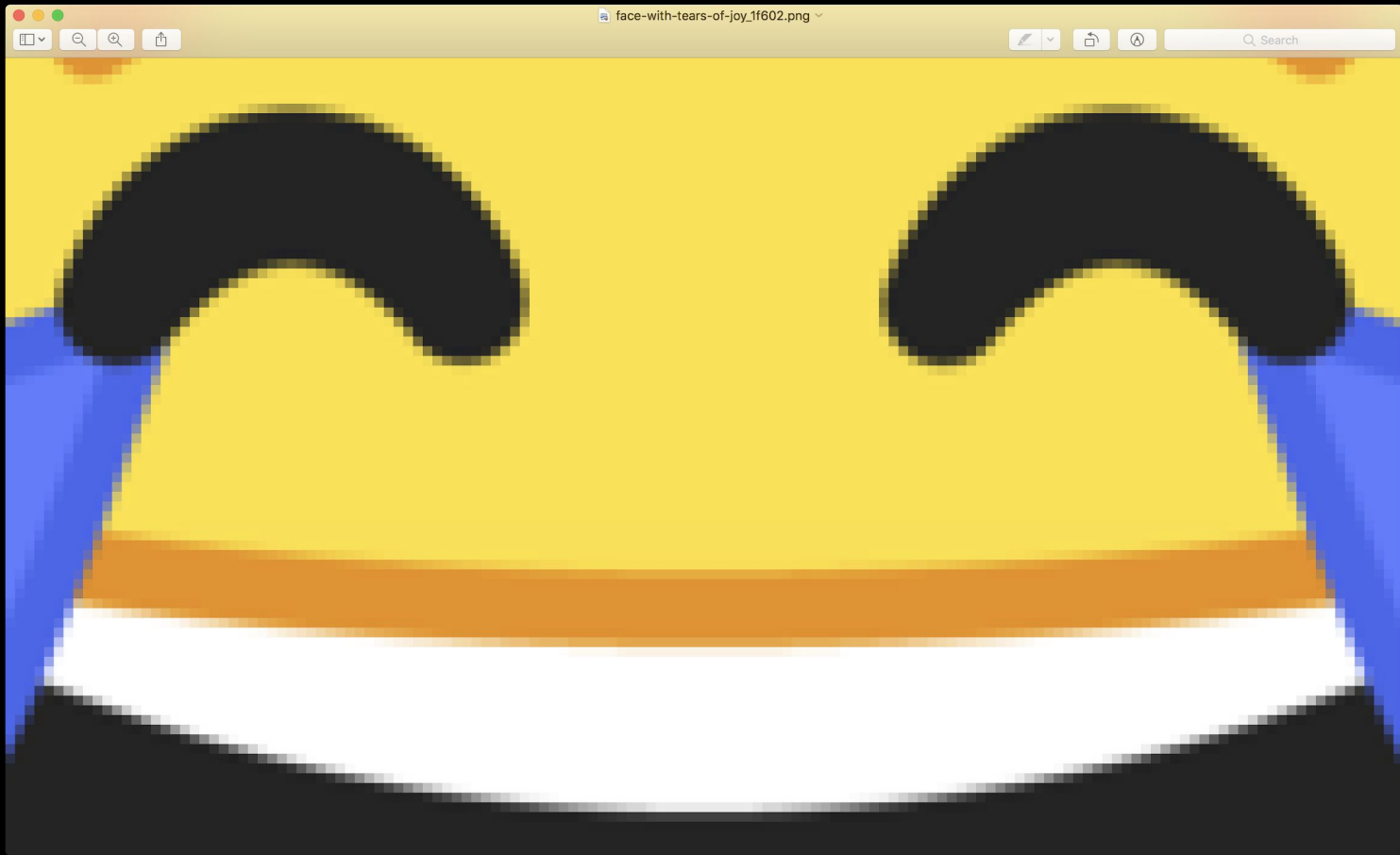
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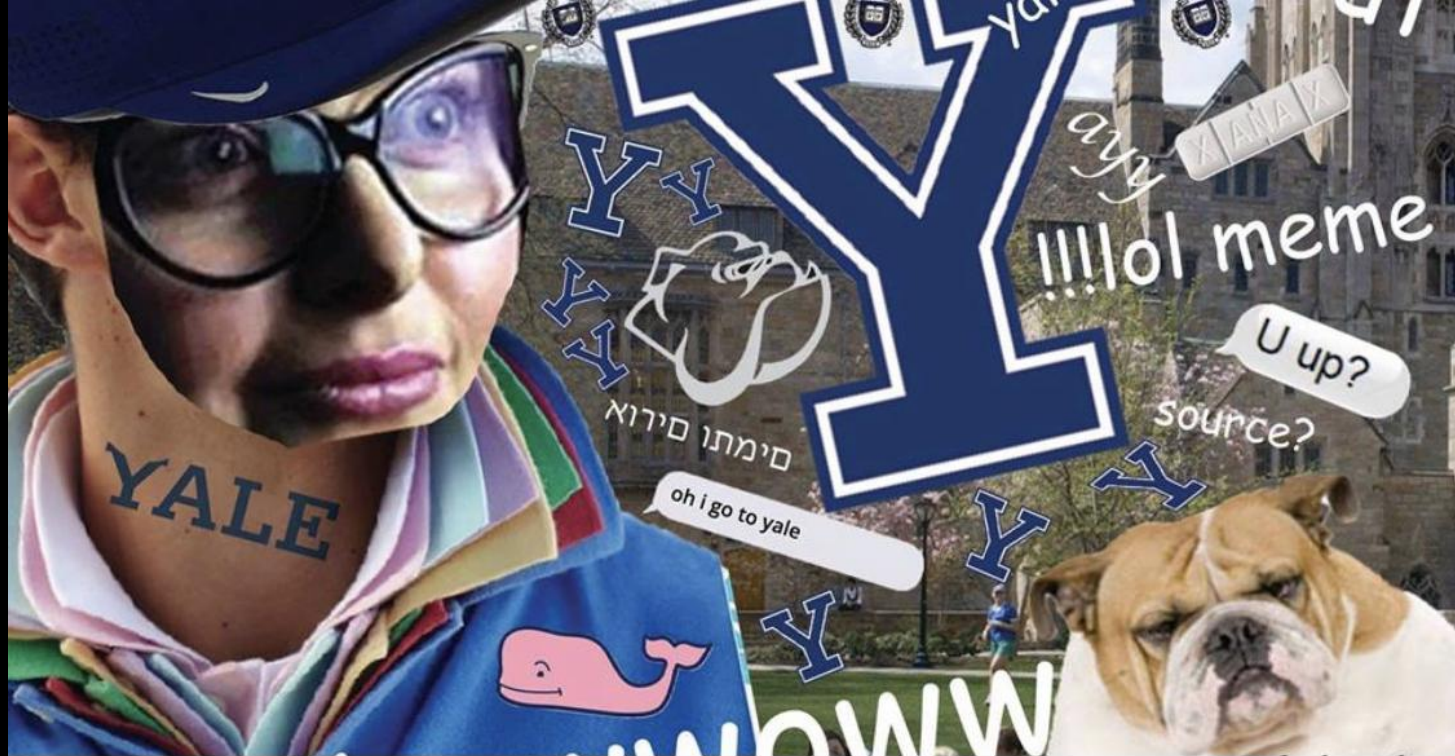




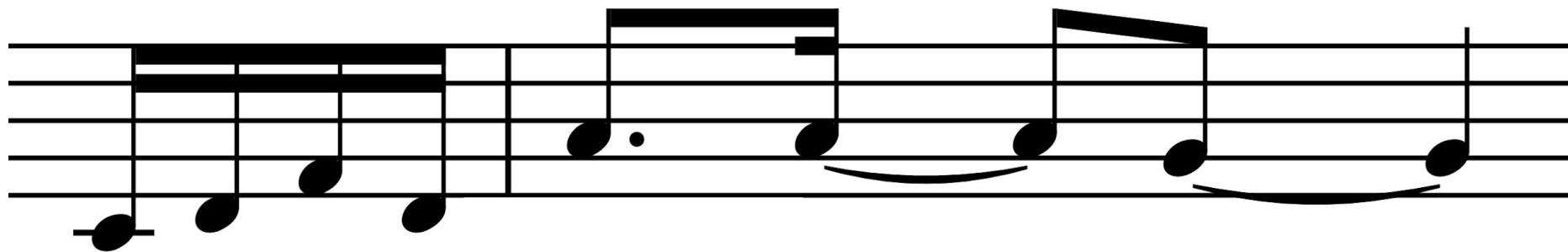








Yale Memes for Special Snowflake Teens >





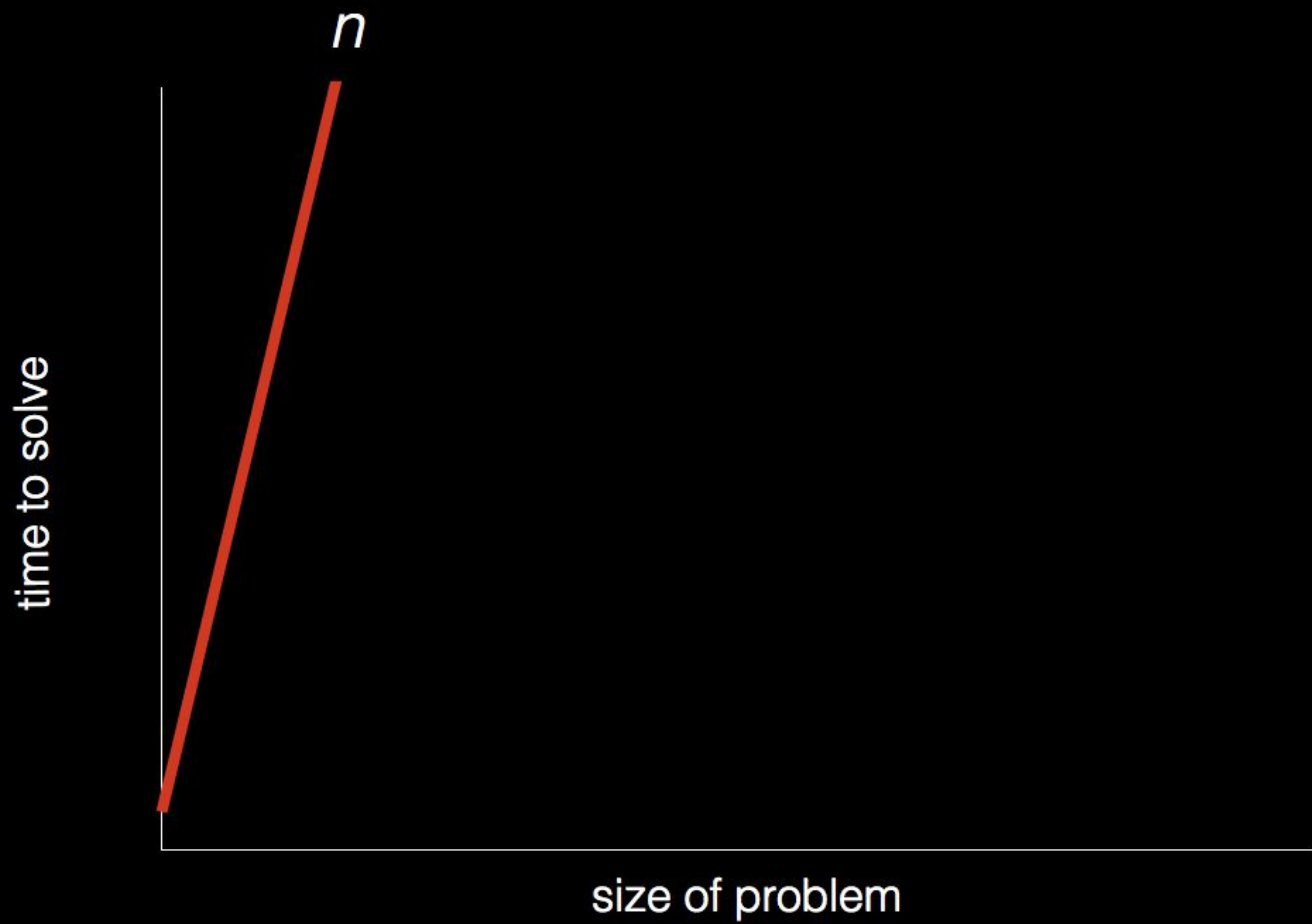


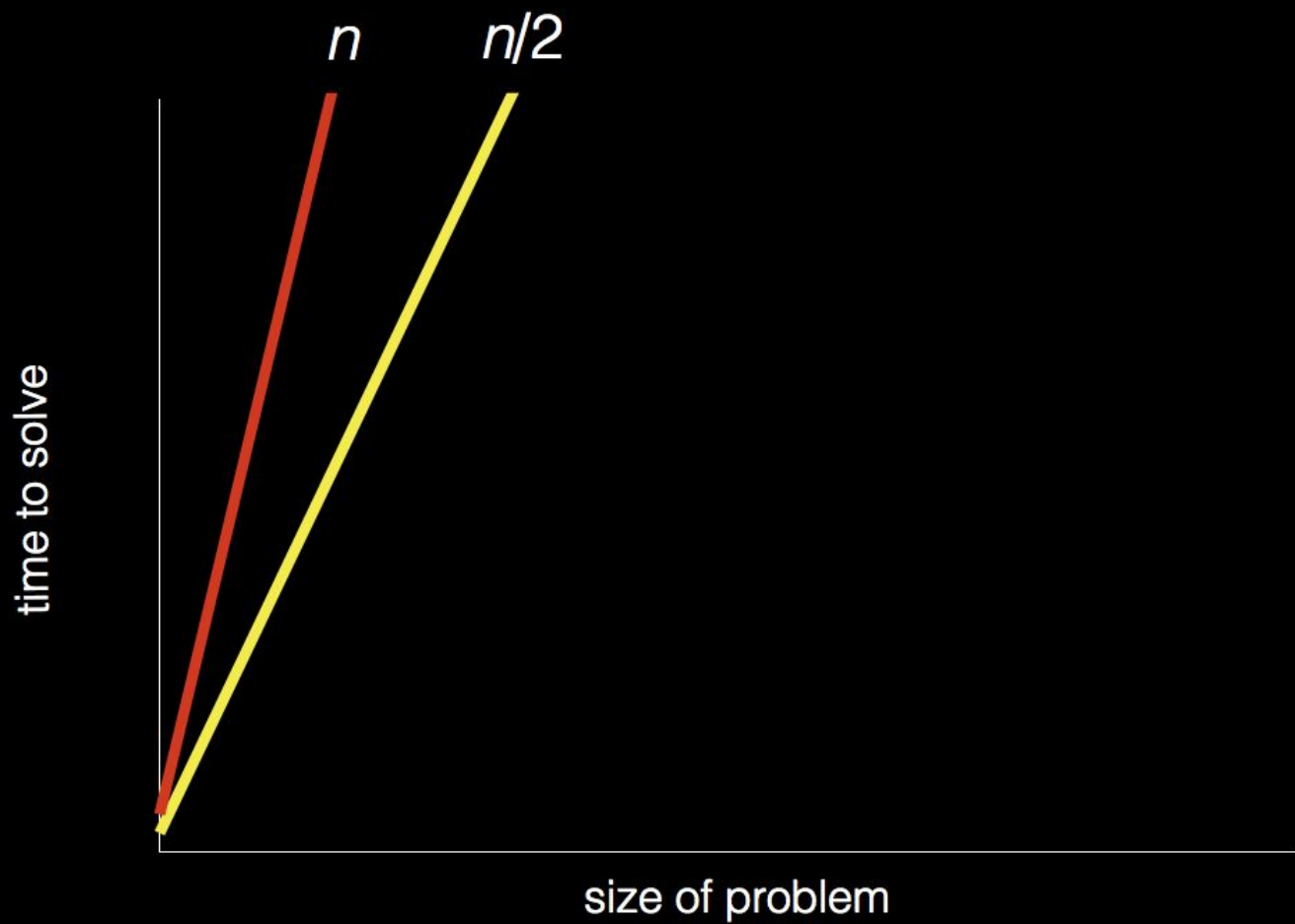
algorithms

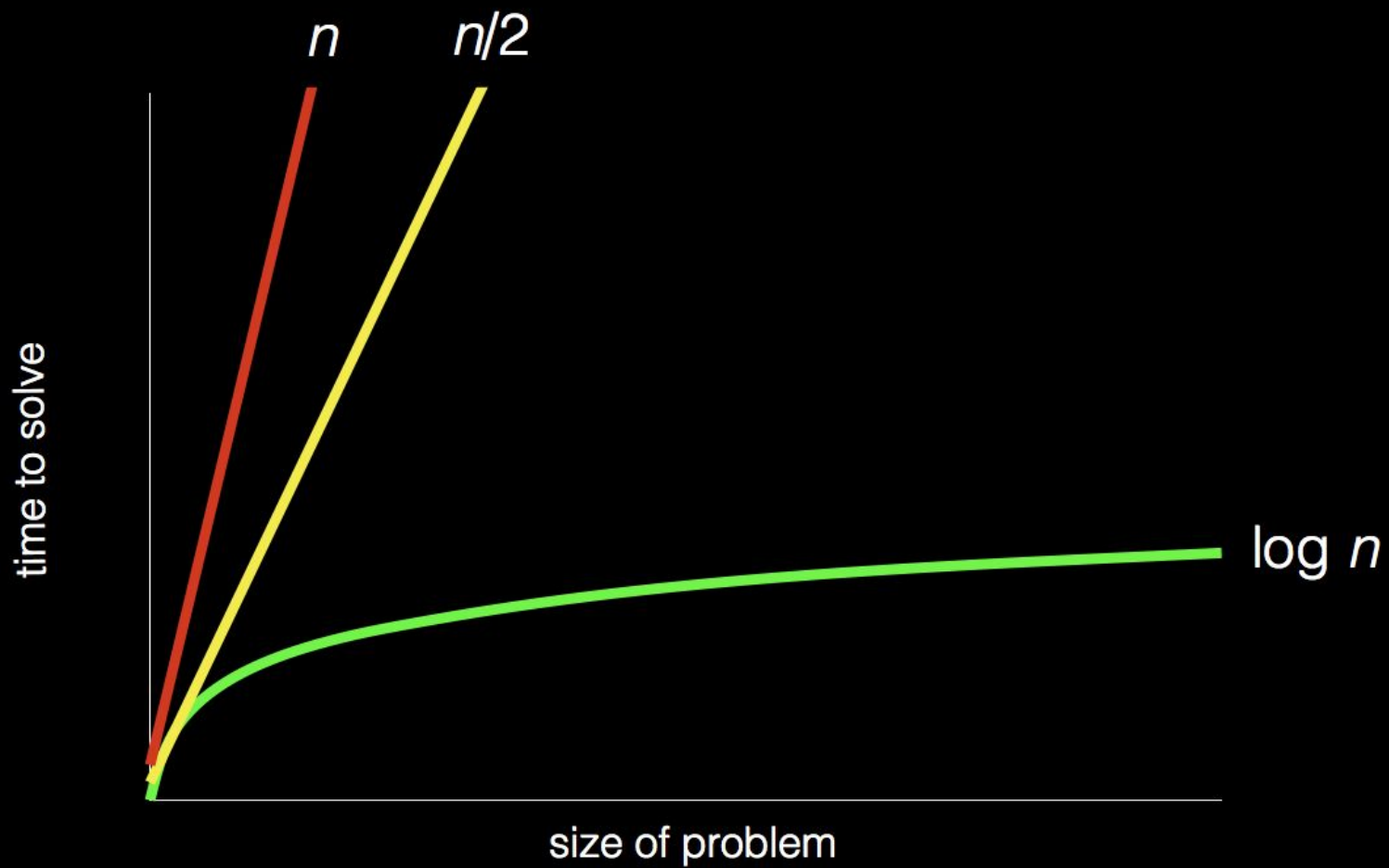
time to solve

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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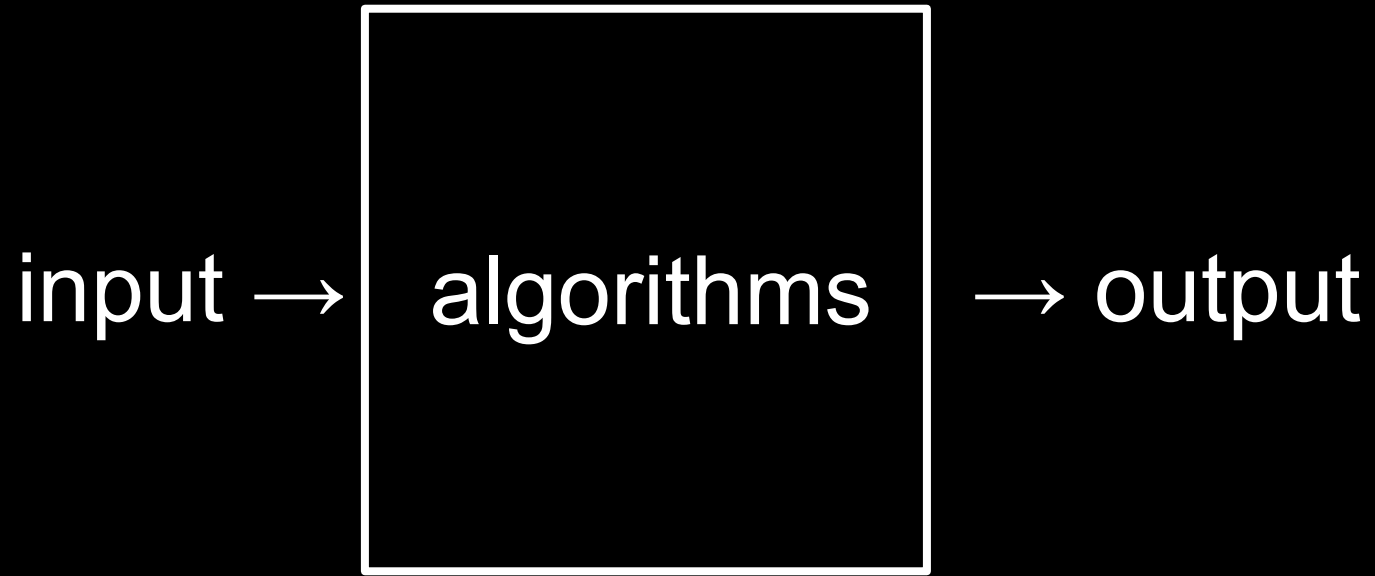
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```

- functions
- conditions
- Boolean expressions
- loops

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





hello, world

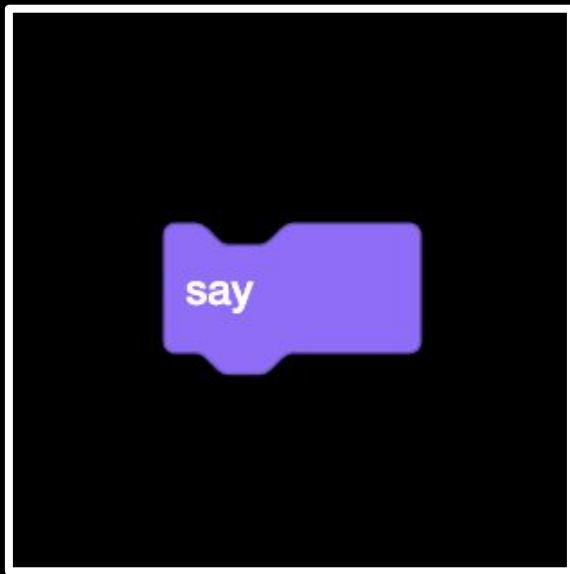


algorithms



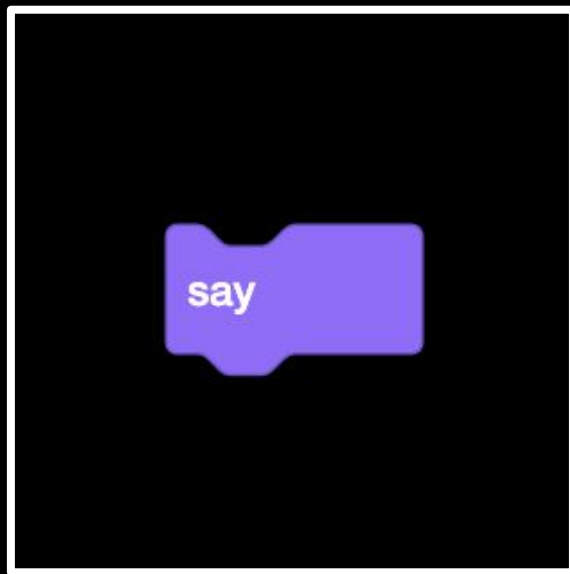
output

hello, world

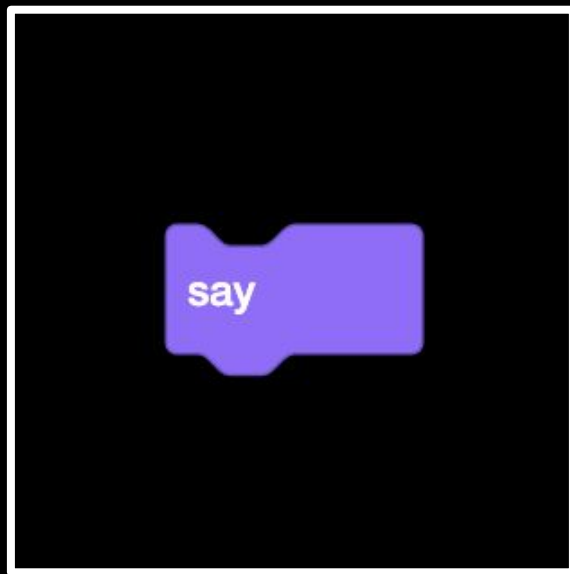


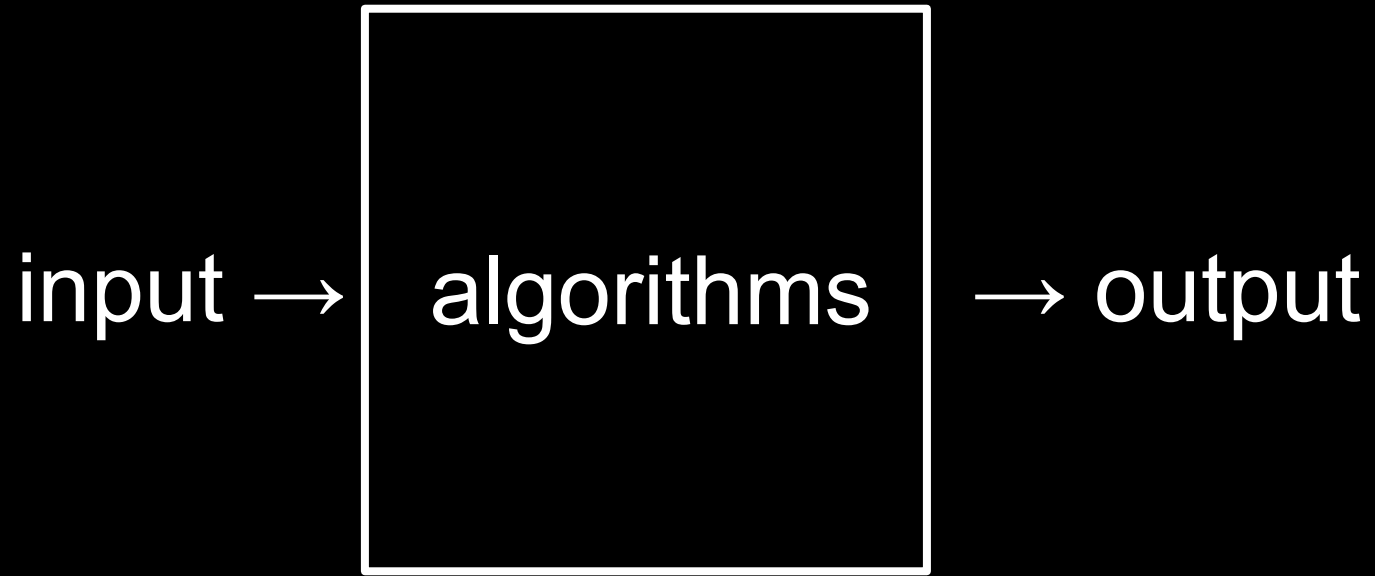
→ output

hello, world



hello, world





What's your name?

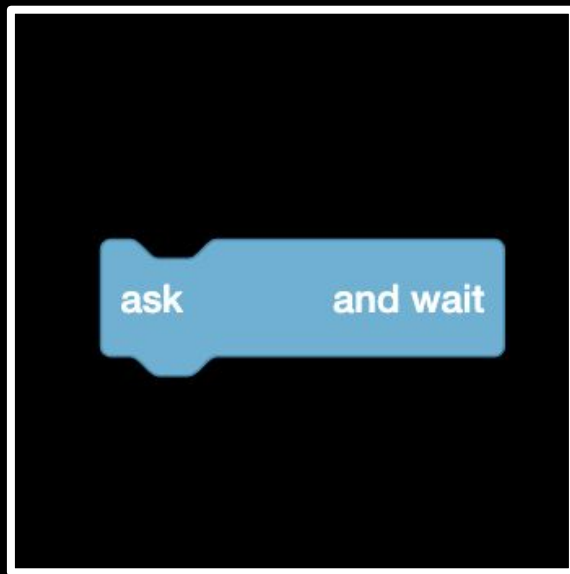


algorithms

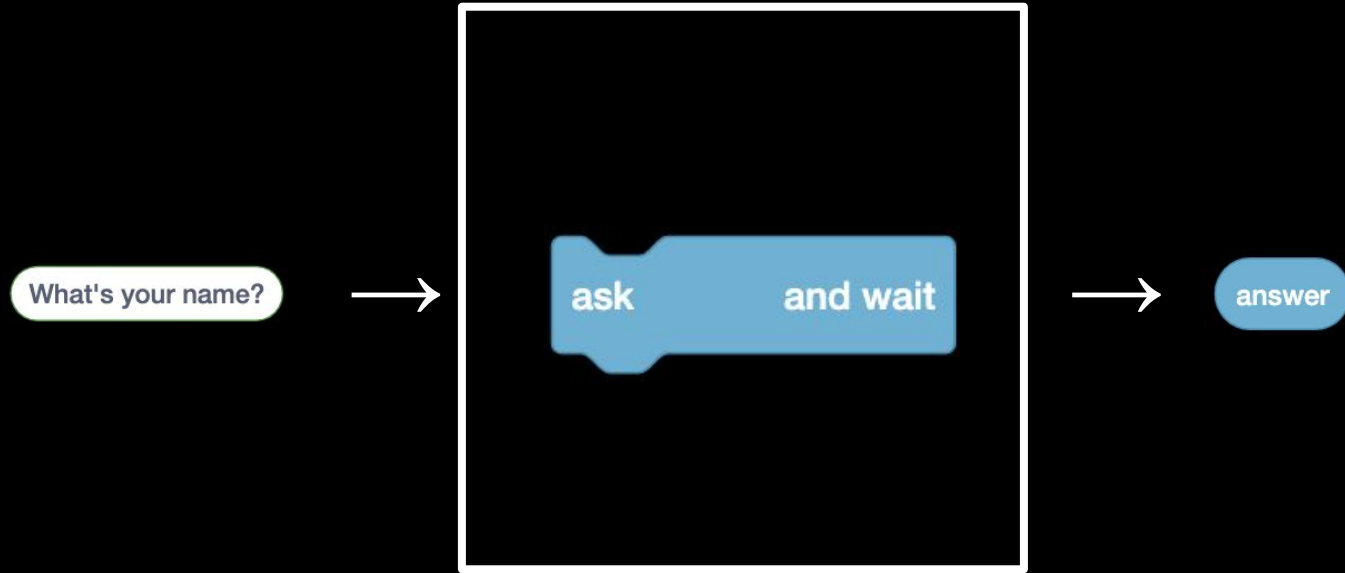


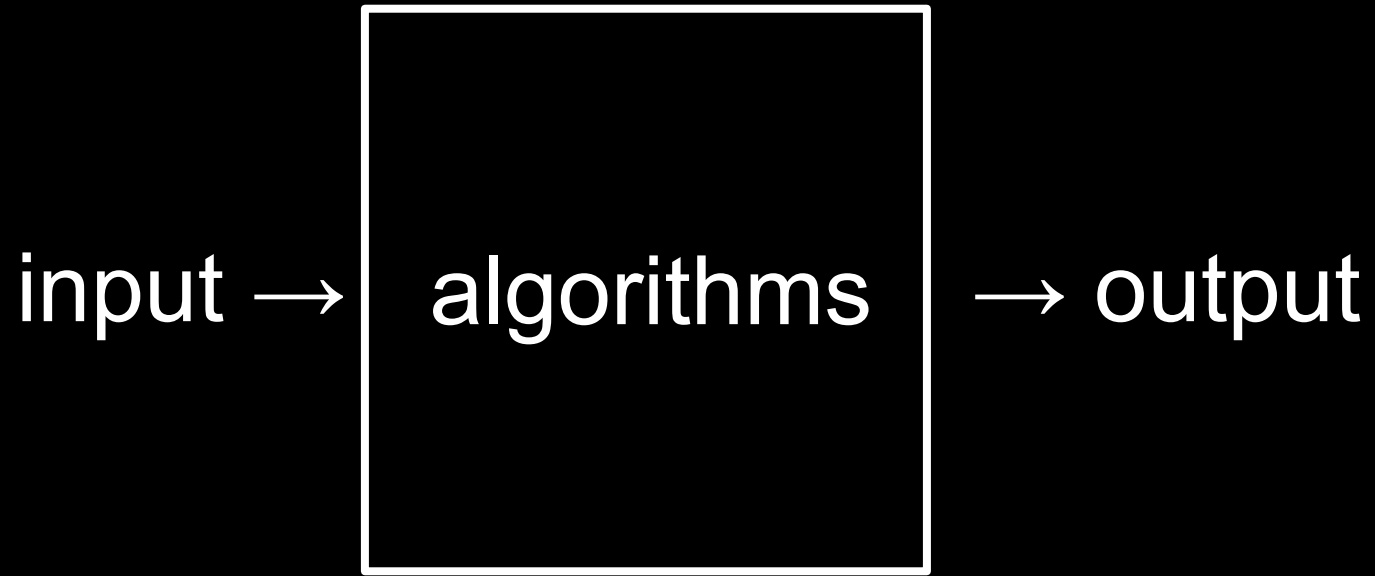
output

What's your name?



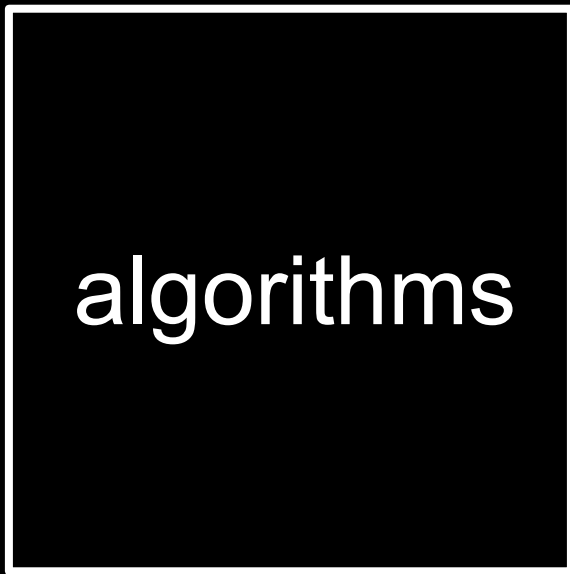
→ output



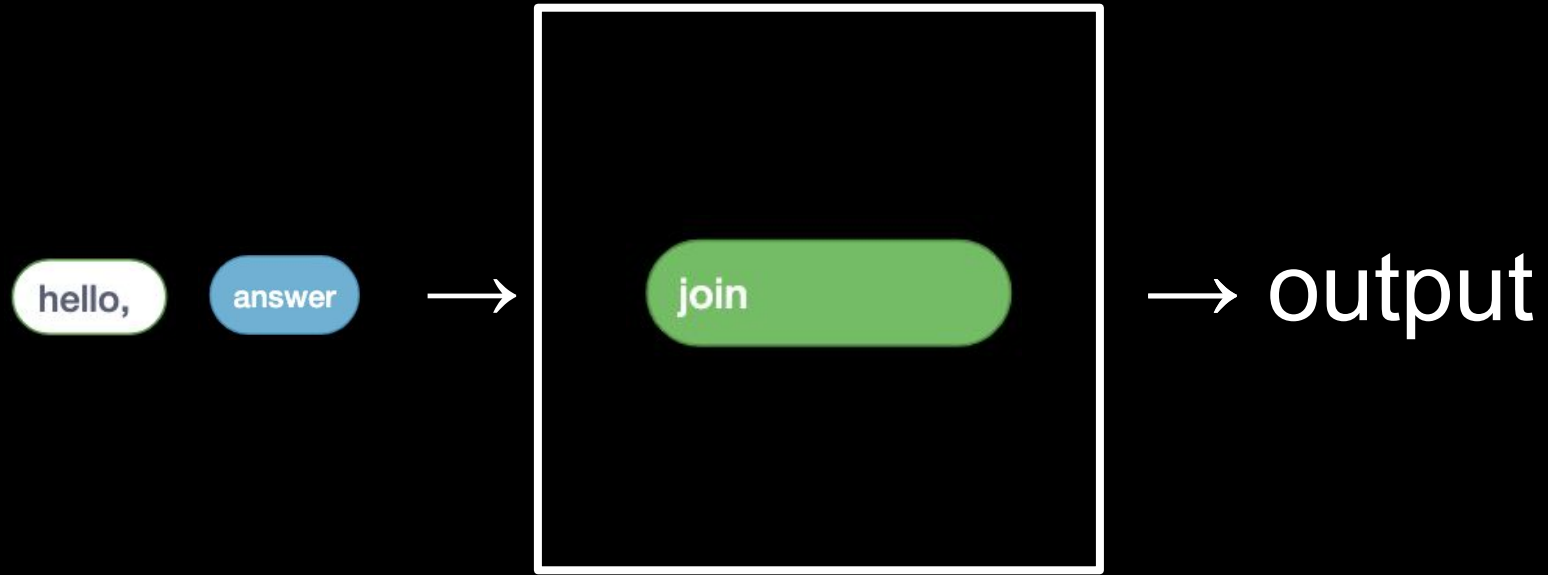


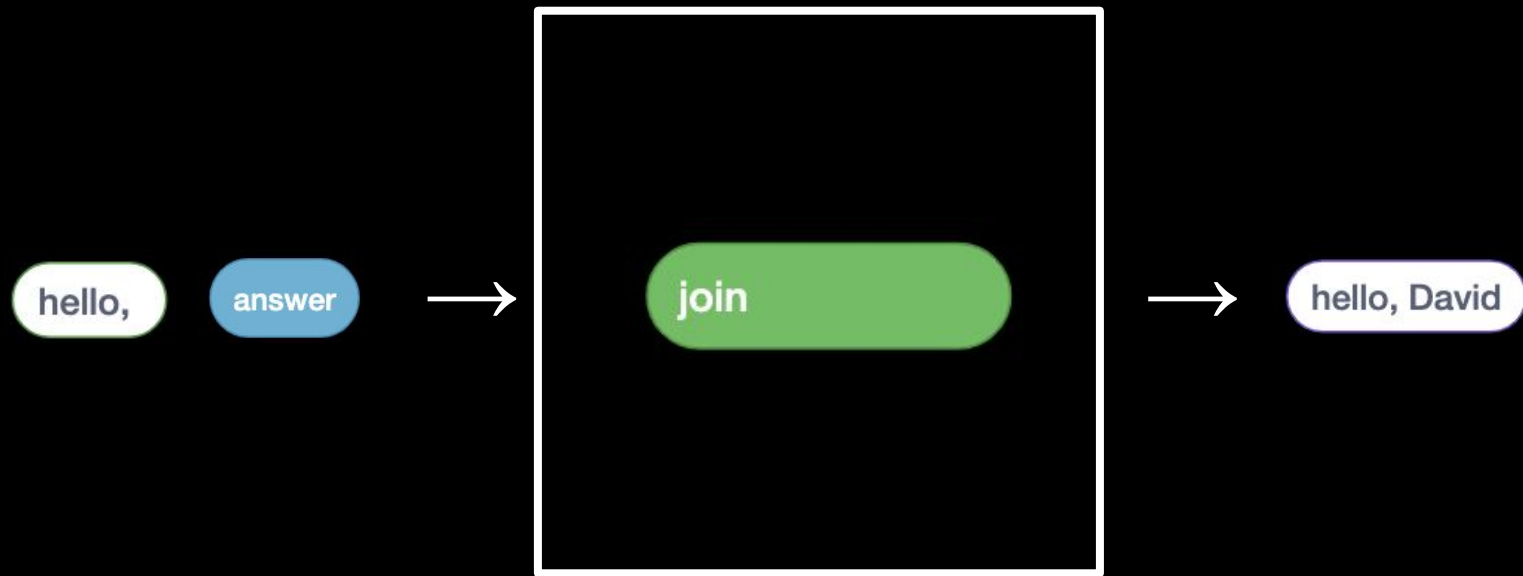
hello,

answer



output







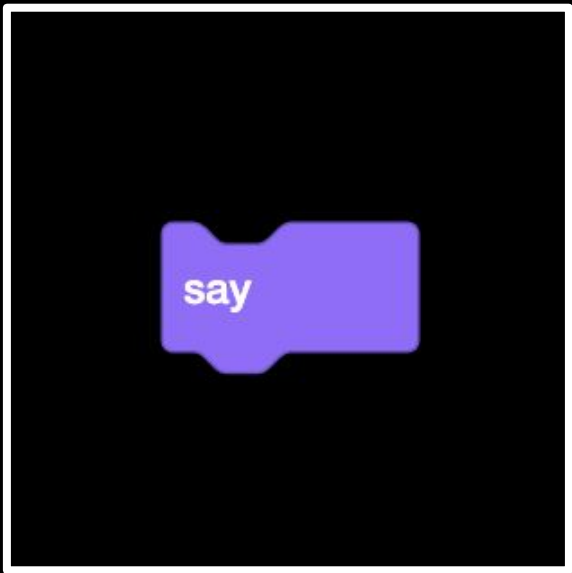
hello, David



hello, David



hello, David

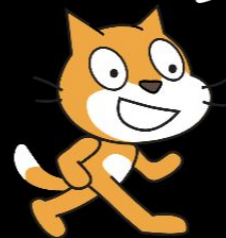




hello, David



say



hello, David









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