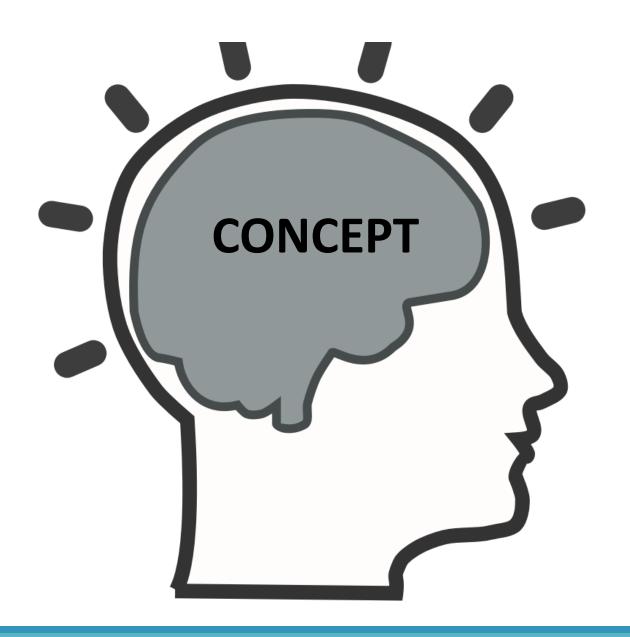
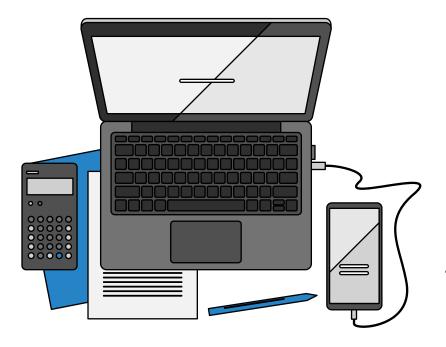


## Python

Let the screen do the show



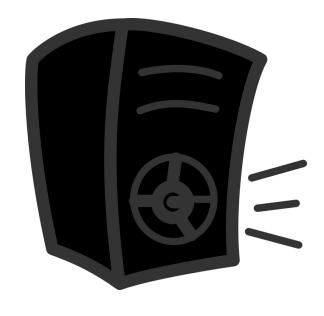
18dice



Computers are tools made to help people.

It is important for the computer to tell us what it knows.

## There are at least two ways to express the information

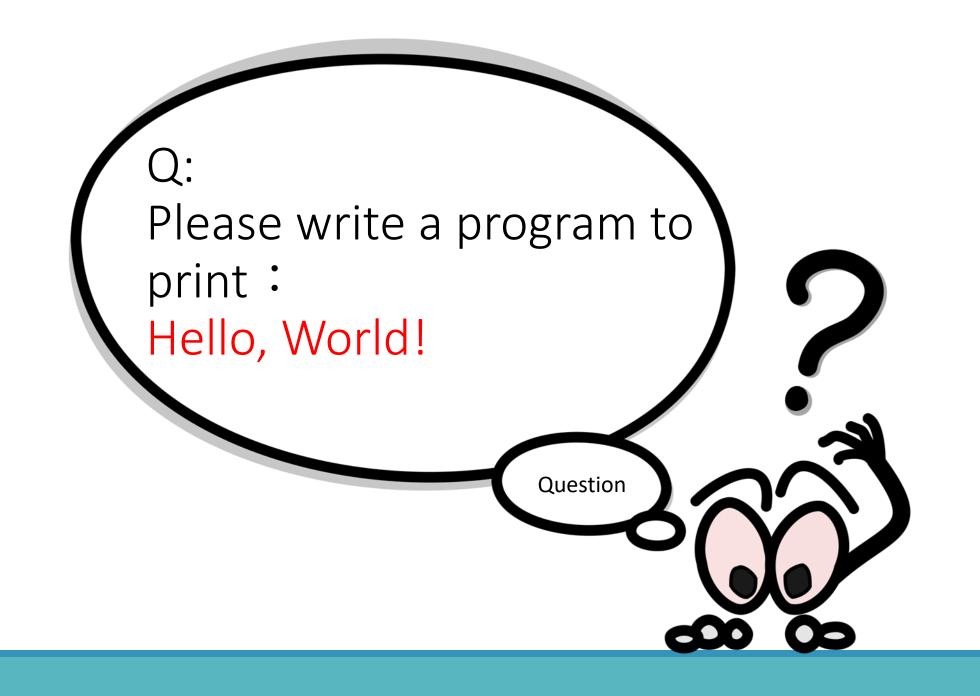


The computer make sound by speaker.



The computer output text on the screen.





#### Python tell us "Hello, World!" by printing.

print ("Hello, World!")



#### Print is the output instruction

Red words will be printed

print("Hello, World!")

• How do you print "你好"?

print ("你好")



#### Make sure to add some description in between codes.

Solution 1: comment one • Solution 2: comment line of the code

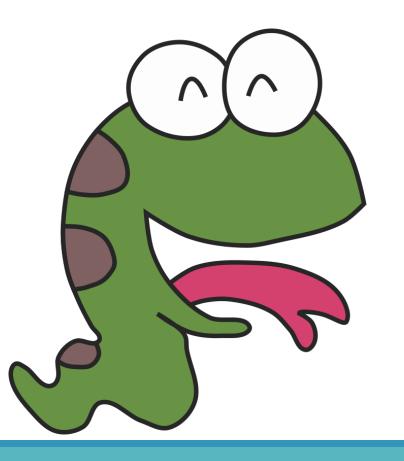
```
print("Hello, Dice!")
# This is a single line of remark
print("Hello, Dice!")
# output with print
```

one part of the code

1111111

These are multiple lines of remark. None of these texts or codes would be printed. 1111111





## Python

**Extended concepts** 



## Concept 1: line breaks or not

- Each print() wraps when it is printed.
- No line breaks? print(1, end="")
- Two lines breaks?
  print(1, end='\n\n')
- \n , means line breaks

```
No line breaks
=> print(1, end= "")
Two line breaks
=> print(1, end='\n\n')
```

```
What if we set a line breaks end = ??? => print(1, end='\n')
```

## **Concept 1: The Method of None Line Breaks**

 No parameters needed when line breaks

No need to add any parameters after the print.

The line will break automatically.

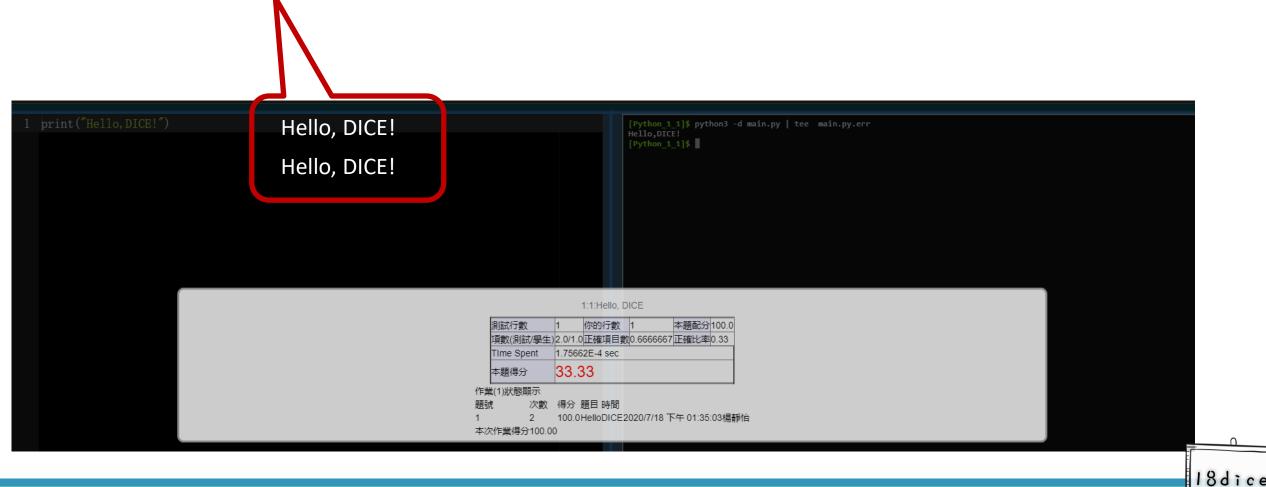
2-3=5 2 print("2-3=5") 2-3=5 No line breaks

end=""should be added after the print.

```
1 print("2-3=5", end="")
2 print("2-3=5")
2 - 3=52-3=5
```



#### What are the differences?



#### **Empty space does not mean nothing!**

Bin	Dec	Hex		Bin	Dec	Hex		Bin	
0010 0000	32	20	(space)	0100 0000	64	40	@	0110 0000	9
0010 0001	33	21	į.	0100 0001	65	41	Α	0110 0001	9
0010 0010	34	22	"	0100 0010	66	42	В	0110 0010	9
0010 0011	35	23	#	0100 0011	67	43	С	0110 0011	9
0010 0100	36	24	\$	0100 0100	68	44	D	0110 0100	10
0010 0101	37	25	%	0100 0101	69	45	Е	0110 0101	10
0010 0110	38	26	&	0100 0110	70	46	F	0110 0110	10
0010 0111	39	27	1	0100 0111	71	47	G	0110 0111	10
0010 1000	40	28	(	0100 1000	72	48	Н	0110 1000	10
0010 1001	41	29	)	0100 1001	73	49	ı	0110 1001	10
0010 1010	42	2A	*	0100 1010	74	4A	J	0110 1010	10
0010 1011	43	2B	+	0100 1011	75	4B	K	0110 1011	10
0010 1100	44	2C	1	0100 1100	76	4C	L	0110 1100	10

## Capital letters and Small letters are not the same

Binary Number	Decimal Number	Hex Number	Graph	Binary Number	Decimal Number	Hex Number	
0100 0000	64	40	@	0110 0000	96	60	•
0100 0001	65	41	Α	0110 0001	97	61	а
0100 0010	66	42	В	0110 0010	98	62	b
0100 0011	67	43	С	0110 0011	99	63	С
0100 0100	68	44	D	0110 0100	100	64	d
0100 0101	69	45	Е	0110 0101	101	65	е

# List cited above: American Standard Code for Information Interchange (ASCII)

https://zh.wikipedia.org/wiki/ASCII

