



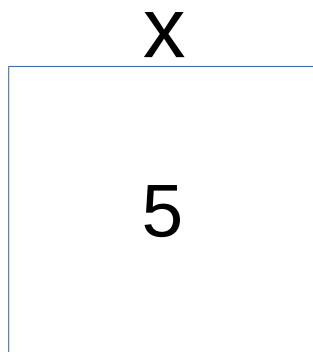
Day 1

Variables, Strings, Simple Python

Variables are just placeholders

$x = 5$

$x \leftarrow 5$
Assignment



\leftarrow
Read

`print(x)`



Name your variables properly

- Lowercase
- Descriptive
- Underscore_between_words
- No conflict with inbuilt names

Numbers and Strings

“Hello world!”

“ or ‘  Tells Python it's text

Text works very different from numbers!

What's the difference between 1 and 1.0?



Numbers!

- Integral type
- Float type
- Complex numbers

+ , - , * , / , // , % , **



Pizza time!

- Build a Pizza calculator script
- Use variables for all numbers
- For a Pizza of Radius z and height a :
 $V = \pi * z * z * a$
- $\pi = 22/7$ (plenty close) or 3.14 (close enough)



Whitespace

- Use empty lines to section your script
- Avoid empty space where it doesn't belong
- Especially avoid it at the beginning of lines (more later)



Comments

- One-line comments are started with `#`, end with line
- Multi-line commands start and end with `"""`
- Later you explain yourself the script
- Can also section things



Add some nice toppings

- Properly comment and section your Pizza script

Strings!



```
>>> 'Python goes b' + 'r'*10  
'Python goes brrrrrrrrrrr'
```

String slicing

“ H e l l o | w o r l d ”
0 1 2 3 4 6 7 8 9 10
[0:5] [6:11]
[5]



Functions and methods

`do(x)` : *do* is a function

`x.do()` : *do* is a method

You'll learn the difference later.

For now just remember which to use.



For your string needs

<code>.strip()</code>	Remove whitespace at ends
<code>.replace(old, new)</code>	Replaces “old” with “new”
<code>.capitalize()</code>	Like so
<code>.lower()</code>	like so
<code>.title()</code>	Like So
<code>.upper()</code>	LIKE SO

and MANY MORE!!



World: “Hello you!”

- Write a nice greeter program to say hello to you.
- Use the `input()` and `print()` functions along with f-Strings.



What's my name?

- Slice and dice your name to make some funny creations.
- Be creative! ;)



Exercises

1. Replacing within a string:

- Create string with words separated by commas (,)
- Replace the commas with spaces
- Print out resulting string

2. Write a greeter program:

- Says hello, then asks for your name
- User inputs the name
- Prints a greeting with the name