GFX + MOD

▽ Start small, get something small working, then add to it

3.2. How to avoid debugging

1. Understand the problem ↑↑↓
2. Start small   (small victory!)
3. Keep improving it   ♡

→ testing → to find (boundary conditions)

error message

Parse error — grammar error
e.g. print(... without)

3.3. Beginning tips for debugging

print statement

type error — non-compatible things
e.g. add string + integer

name error   value error

❗ print statement is my friend → print(type(x)) ... to understand what's happenin

to draw pictures

4.1. Hello Little Turtles!

4.2 Our first turtle program

State
e.g. tail

Attribute
e.g. alex.color(red)
window.bgcolor(green)

program:
```
import turtle
window = turtle.Screen()          # create a graphics window
alex = turtle.Turtle()            # create a turtle named Alex
alex.forward (150)
alex.left (90)
alex.forward (75)
window.exitonclick               # wait for user to click on the canvas
```

4.3. Herd of turtles

4.4. For loop

iteration
e.g. for name in [" ... ", " ... "]
        print("Hi", name, "How are you?") → loop body

⇒ this is to apply in the turtle problem
e.g. to create a square   for i in [0,1,2,3]:
                                alex.forward(50)
                                alex.left (90)