



What is Programming?

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Intro to Programming: Week 1



Agenda

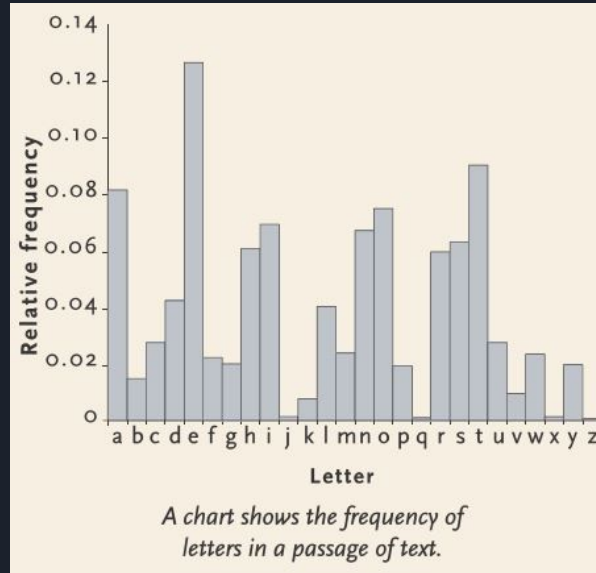
- Brief history of solving problems
- The current state of programming
- Examples of problem solving with programming
- Next steps



- History
- 8th century Music Machine
 - 13th century Code Breaking
 - 20th century Calculator



Banu Musa Brothers -
Mechanical Flute
Player



Al-Kindi -
Cryptography



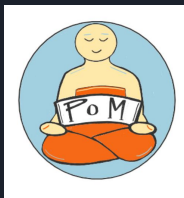
IBM 602 -
First electronic
computers - Data
storage



Problem Solving Today

- How hard can making a cup of tea be?
- Solve the problem in chunks (methods/functions)
- Interpreting your solution (compiler)





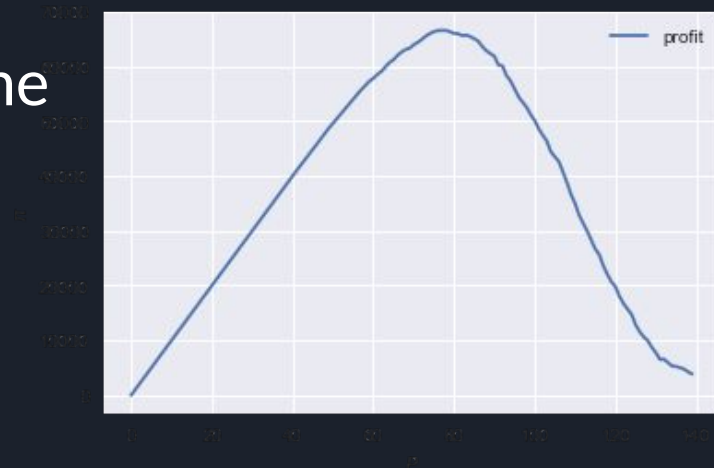
Example (*supply_demand.py*)

Problem: How to set a price for a product?

Number of Agents = 1000; Goods = 100

Normal distribution of income

$\text{Sum afford} * \text{value} = \text{demand}$





Next Steps

Hands on Examples?

Github pages?

Machine Learning?

Maths?

Documentation?