

MA2252 Introduction to Computing

Lecture 1: Introduction and MATLAB Basics

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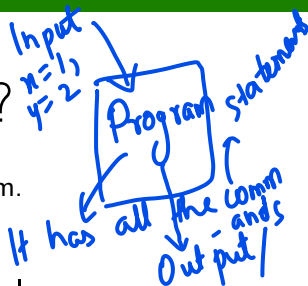
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Learning outcomes

- Understanding what computing means
- Introduction to MATLAB as a programming language
- Introduction to the course on Blackboard
- Overview of MATLAB environment

What is computing?

Using computers to solve a problem.



Some programming languages:

- C , C++, Java
- Python
- MATLAB ✓

result
plot $x=5$

Why do programming?

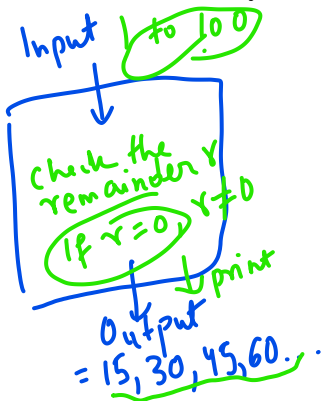
- To do tedious calculation tasks
- To build your own calculator!
- To find numerical solutions

what if you don't have to
exact solutions
long calculations
by multiplying
big
two
100x100
matrices
calculate an integral
draw art
plot

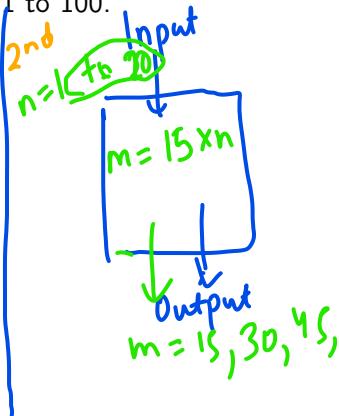
Example of a program

Find all numbers divisible by 15 from 1 to 100.

1st



2nd



Polling

I want to know if you have past programming experience.

Please go to the link <https://www.menti.com/a176t3kh6sg7> provided in chat

or

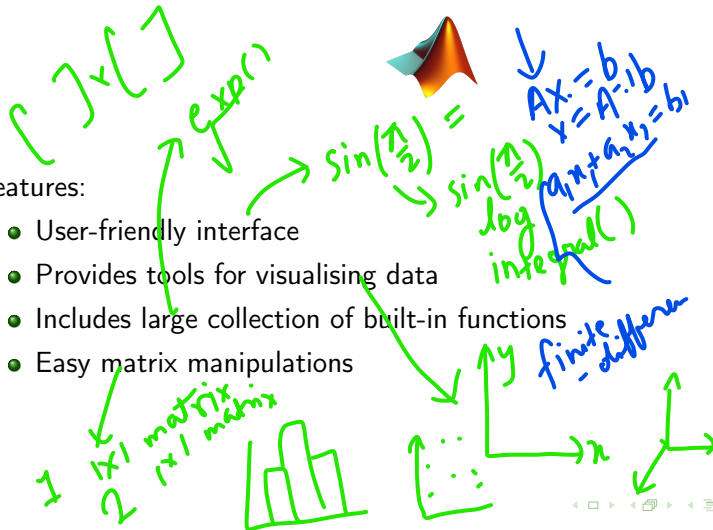
visit <https://www.menti.com> and enter the code **84161441**

MATLAB platform

MATLAB is a popular programming language used by mathematicians, engineers and scientists to solve problems.

Features:

- User-friendly interface
- Provides tools for visualising data
- Includes large collection of built-in functions
- Easy matrix manipulations



MATLAB installation

Install MATLAB [▶ here](#)

University of Leicester provides free MATLAB license for students.

Let's go to Blackboard!

MATLAB environment

The MATLAB environment contains four windows:

- Current Folder → current directory
- Command window → enter the commands
- Command history window → history of commands
- Workspace window → where all variables → matrix, will be stored $x, y, z,$ shared,

Demo

End of Lecture 1

Please provide your feedback [▶ here](#)