# A Refresher Maths for Economics pre-sessional course at Warwick

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## Outline

- Why refresh maths?
- Brief demonstration
- Numbas quizzes
- Usage

# Why refresh maths?

#### Warwick Economics context

- Entry requirements to UG degrees
  - ullet single honours: A in A-level Mathematics (pprox 6 in IB HL Mahematics)
    - comparison to other quantitative degrees
  - joint honours: no A-level Mathematics required, GCSE considered
- Core UG Year 1 Term 1 Mathematical Techniques modules
  - A or B, depending on A-level Mathematics
- Significant share of international students

#### Considerations

- A-level exams disruption in 2021
- Variety of pre-university qualifications
- Contextual offer contexts
- A-level syllabi vs maths content of UG economics
- General maths skills vs modelling skills



### The resources

- First created in summer 2021 by team of colleagues with support of student interns
- Hosted as a dedicated Moodle course
- Also openly available through Economics Network at https://www.economicsnetwork.ac.uk/maths\_refresher/
- Suggested workflow
- Brief demonstration



## Numbas quizzes

- 327 Numbas questions
- Numbas open-source e-assessment system developped at Newcastle University

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https://www.numbas.org.uk/
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- Features randomization, work with algebraic expressions, feedback, integrations with JSXGraph, GeoGebra, etc.
- Can be run standalone or integrated to VLE via SCORM.
- Considerations related to server load.

## How many students use the resources?

Year	$Cohort^1$	Did some	Completed
Number of students			
2021	1049	841	315
2022	758	502	133
2023	674	381	112
Fraction			
2021		0.80	0.30
2022		0.66	0.18
2023		0.56	0.17



<sup>&</sup>lt;sup>1</sup>All students on EC139 and EC140

Thank you!

