

# Mathematics tasks for university

**Discover  
Brunel**

# GetUReady

Our free eight-week programme of maths tests will help get you ready for using maths at university.

They will refresh the maths you know already and introduce you to some new skills.

All tests were developed by lecturers at Brunel and are taken from the [Maths EG website](#).

Select which level is best for you based on whether you currently have GCSE Maths or are working towards A-level Maths.

We hope you find them useful and good luck!

# GCSE Maths: weeks 1-4

## **Week 1: Numeracy 1**

[Multiplication](#)

[Tables](#)

[Currency conversion](#)

[Pay](#)

## **Week 2: Numeracy 2**

[Time](#)

[Charts](#)

[Conversion](#)

## **Week 3: Fractions**

[BODMAS](#)

[Positive integer powers](#)

[Negative integer powers](#)

[Two fractions](#)

[Three fractions](#)

## **Week 4: Algebra 1**

[Simplification & combination](#)

[Two linear factors](#)

[Rearranging equations](#)

[Proportionality](#)

[Linear equations](#)

[Indices](#)

[Linear & quadratic](#)

# GCSE Maths: weeks 5-8

## **Week 5: Coordinate geometry**

[Coordinates \(2D\)](#)

[Straight lines](#)

[Distances and mid-points \(2D\)](#)

## **Week 6: Geometry**

[Bearings](#)

[Lines](#)

[Triangles](#)

[Parallel lines](#)

[Combinations](#)

[Circles](#)

[Circle theorems](#)

## **Week 7: Trigonometry**

[Basic trig](#)

[Polynomials](#)

[Sine rule](#)

[Cosine rule](#)

[Degrees & radians](#)

## **Week 8: Algebra 2**

[Algebraic functions](#)

[Polynomial long division](#)

[Complete the square](#)

[Simplification & combination](#)

[Linear factors](#)

[Higher order](#)

# A-level Maths: weeks 1-2

## **Week 1: Algebra 1**

[Algebraic functions](#)

[Polynomial long division](#)

[Complete the square](#)

[Simplification & combination](#)

[Linear factors](#)

[Higher order](#)

## **Week 2: Elementary functions**

[Exponential](#)

[Symmetry](#)

[Understanding expressions](#)

[Shifts & Transformations](#)

[Rational functions](#)

[Generalised functions](#)

[Inequations](#)

[\$a \sin\(A\) + b \cos\(A\) = R \sin/\cos\(A+\theta\)\$](#)

# A-level Maths: weeks 3-4

## **Week 3: Algebra 2**

[Pascals Triangle](#)

[Quadratic](#)

[Linear](#)

[Product notation](#)

[Understanding expressions](#)

[APs](#)

[GPs](#)

[Relations](#)

[Factors & Roots](#)

[Factor & Remainder Theorem](#)

[Rearranging equations](#)

[Factorisable](#)

## **Week 4: Differentiation 1**

[Polynomials](#)

[Algebraic functions](#)

[Chain rule polynomials](#)

[Trigonometric functions](#)

[Natural logarithms](#)

[Exponentials](#)

[Binomials](#)

# A-level Maths: weeks 5-6

## **Week 5: Integration**

[Polynomials](#)

[Algebraic functions](#)

[Powers](#)

[Polynomial substitution](#)

[Partial fractions](#)

[Logarithmic form](#)

[Exponentials](#)

[Trigonometric functions](#)

## **Week 6: Probability**

- [Definitions](#)
- [Addition rule independent](#)
- [Multiplication rule conditional](#)
- [Addition rule general](#)
- [Combinations](#)
- [Permutations](#)
- [Multiplication rule independent](#)

# A-level Maths: weeks 7-8

## **Week 7: Statistics**

Data types

Mode

Median

Arithmetic mean

Variance

Deviation

Percentiles – inter-quartile

Percentiles – general

Correlation PMCC

Regression

## **Week 8: Differentiation 2**

Trigonometric functions

Natural logarithms

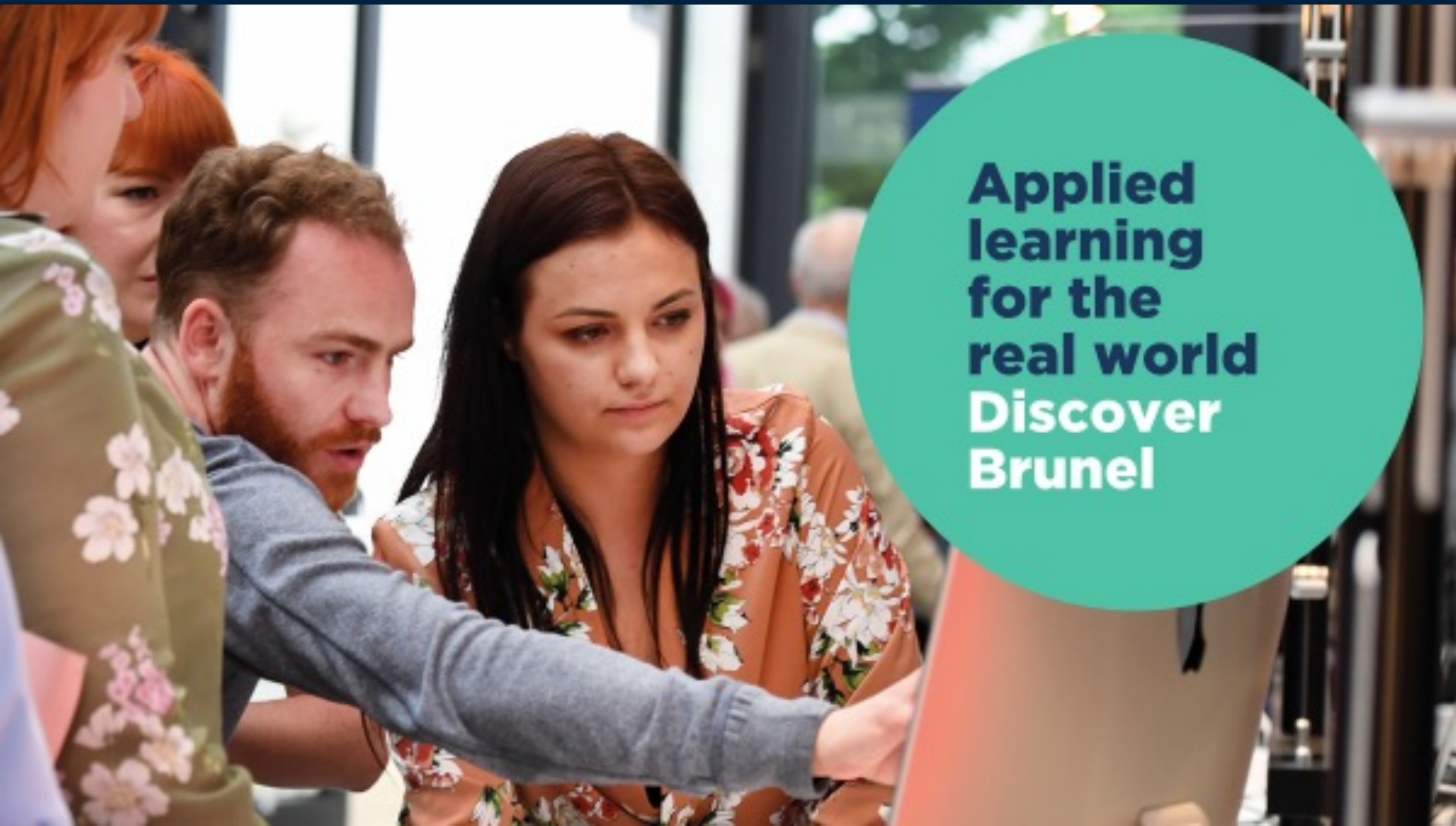
Exponentials

Polynomials

Logarithms

Logarithmic





**Applied  
learning  
for the  
real world  
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