

# Tom's to-do list

## Guides alluded to in materials but no files exist yet

- Rationalizing the denominator (priority, Max)
- Multiple revolutions and negative angles
- Arithmetic on complex numbers (Charlotte)
- Factorization
- Even and odd functions
- Trigonometry and integration
- Solving simultaneous equations (priority, Ollie)
- Rearranging with factorization and reciprocals
- Finding lines and angles using trigonometry
- Inverse trigonometric functions

## Guides wanted

### Maths

- Introduction to derivatives and the limit definition (tdhc drafting 10/24)
- Proof sheet: Derivatives of common functions from first principles
- Product rule (tdhc drafting 10/24)
- Chain rule (tdhc drafting 10/24)
- Quotient rule (tdhc drafting 10/24)
- Introduction to integration
- The Fundamental Theorem of Calculus
- Integration by substitution
- Integration by parts
- Factorials and the binomial coefficient

### Stats

- Fact sheet: Differentiation for statisticians
- Fact sheet: Integration for statisticians

- Intro to probability
- Conditional probability and Bayes' Theorem
- Intro to random variables
- PMFs and PDFs (Sophie C)
- Central limit theorem
- Introduction to hypothesis testing (Ellie)
- The normal distribution
- (Guides on distributions)
- Fact sheet: Discrete random variables versus continuous random variables
- What is a p-value? (AL)

## Guides for which files exist in some guise

### Arithmetic and algebra

Topic	Link to guide	Link to questions	Link to answers
Introduction to quadratic equations	done	cat	cat
Completing the square	done	cat	cat
The quadratic formula	done	cat	cat
Laws of indices	done	cat	cat
Solving exponential equations	done	cat	cat
Introduction to logarithms	done	cat	cat
Sigma notation	done	cat	cat
Rearranging equations	done	cat	cat
Further sigma notation (DRAFT)	write	write	write
Rearranging trig and logs	split	split	split

### Angles and trigonometry

Topic	Link to guide	Link to questions	Link to answers
Radians	done	cat	cat
Introduction to trigonometry	done	cat	cat

Topic	Link to guide	Link to questions	Link to answers
Trigonometric identities	done	cat	cat

## Vectors

Topic	Link to guide	Link to questions	Link to answers
Introduction to vectors	done	cat	cat
Addition and scalar multiplication	done	cat	cat
The scalar product	done	cat	cat

## Factsheets

Topic	Link to factsheet
Laws of indices	cat
Greek letters	cat

## Proof sheets

Topic	Link to proof sheet
Quadratic formula	cat
Scalar product	cat
Trigonometric identities	under construction
Properties of sigma notation	under construction