



FURTHER MATHEMATICS

OCR Further Mathematics B (MEI)

Content Overview

Content is in two areas:

- Core Pure content
- Options (any **two** of the following six):

Y411 Mechanics a

Y412 Statistics a

Y413 Modelling with Algorithms

Y414 Numerical Methods

Y415 Mechanics b¹

Y416 Statistics b¹

The overarching Themes are assessed in all papers.
See Section 2b.

¹These options are designed to be taught alongside the non-AS content of A Level Mathematics.

Assessment Overview

Mandatory paper:

Core Pure
(Y410)

60 marks

1 hour 15 minutes

Written paper

33⅓%
of total
AS level

Optional paper:

60 marks

1 hour 15 minutes

Written paper

33⅓%
of total
AS level

Optional paper:

60 marks

1 hour 15 minutes

Written paper

33⅓%
of total
AS level

Content Overview

The qualification comprises one mandatory Core Pure paper and then a combination of optional papers:

- Core Pure content¹
- Major options
 - Mechanics Major (Y421)¹
 - Statistics Major (Y422)¹
- Minor options
 - Mechanics Minor (Y431)²
 - Statistics Minor (Y432)²
 - Modelling with Algorithms (Y433)²
 - Numerical Methods (Y434)²
 - Extra Pure (Y435)
 - Further Pure with Technology (Y436)

The Overarching Themes must be applied along with associated mathematical thinking and understanding, across the whole of the subject content. See Section 2b.

¹One third of the Core Pure content, and one half of the content of each major option can be co-taught with AS Further Mathematics. This material is labelled (a) throughout Sections 2c to 2e.

²These minor options can be co-taught with AS Further Mathematics.

Assessment Overview

Mandatory paper:

Core Pure (Y420)

144 raw marks
(180 scaled)

2 hour 40 mins
Written paper

50%
of total
A level

Major Option

120 raw marks
(120 scaled)

2 hour 15 mins
Written paper

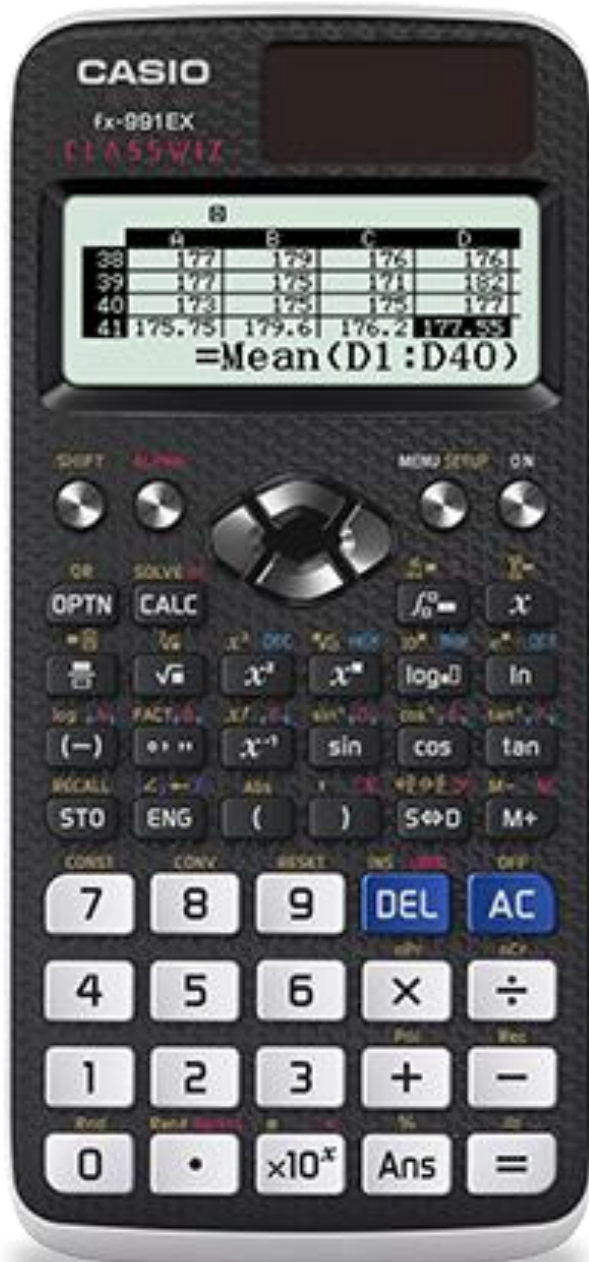
33⅓%
of total
A level

Minor Option

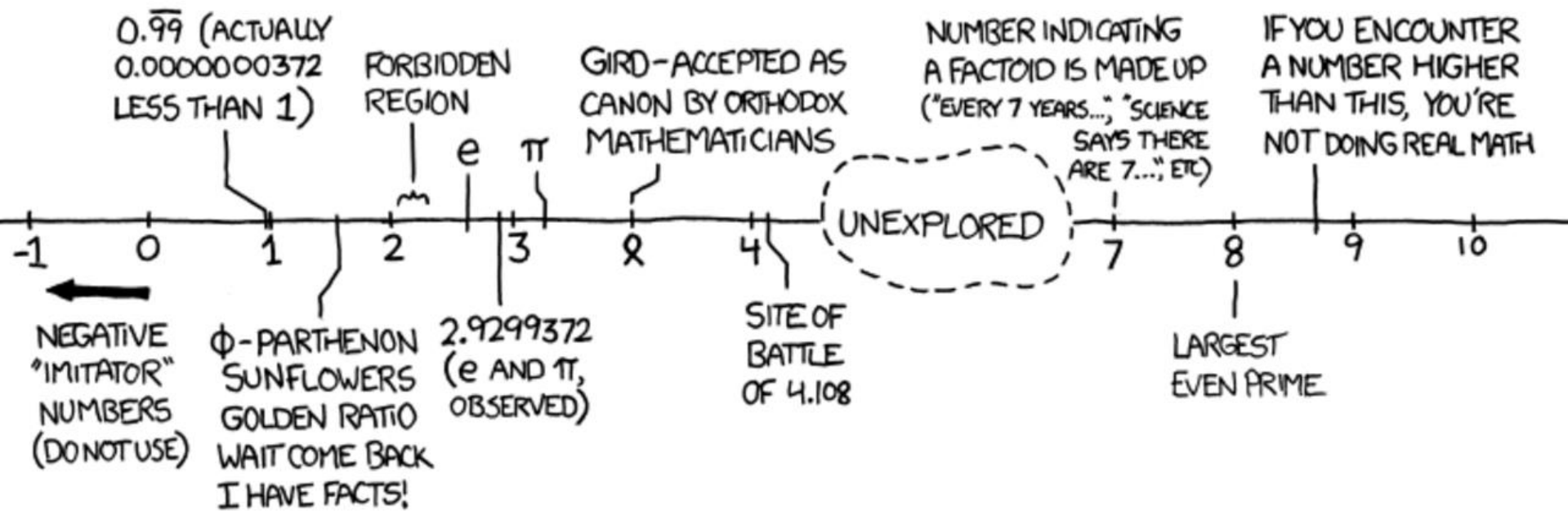
60 raw marks
(60 scaled)

1 hour 15 mins
Written paper
(1 hour 45 mins
Written paper
for Y436)

16⅔%
of total
A level

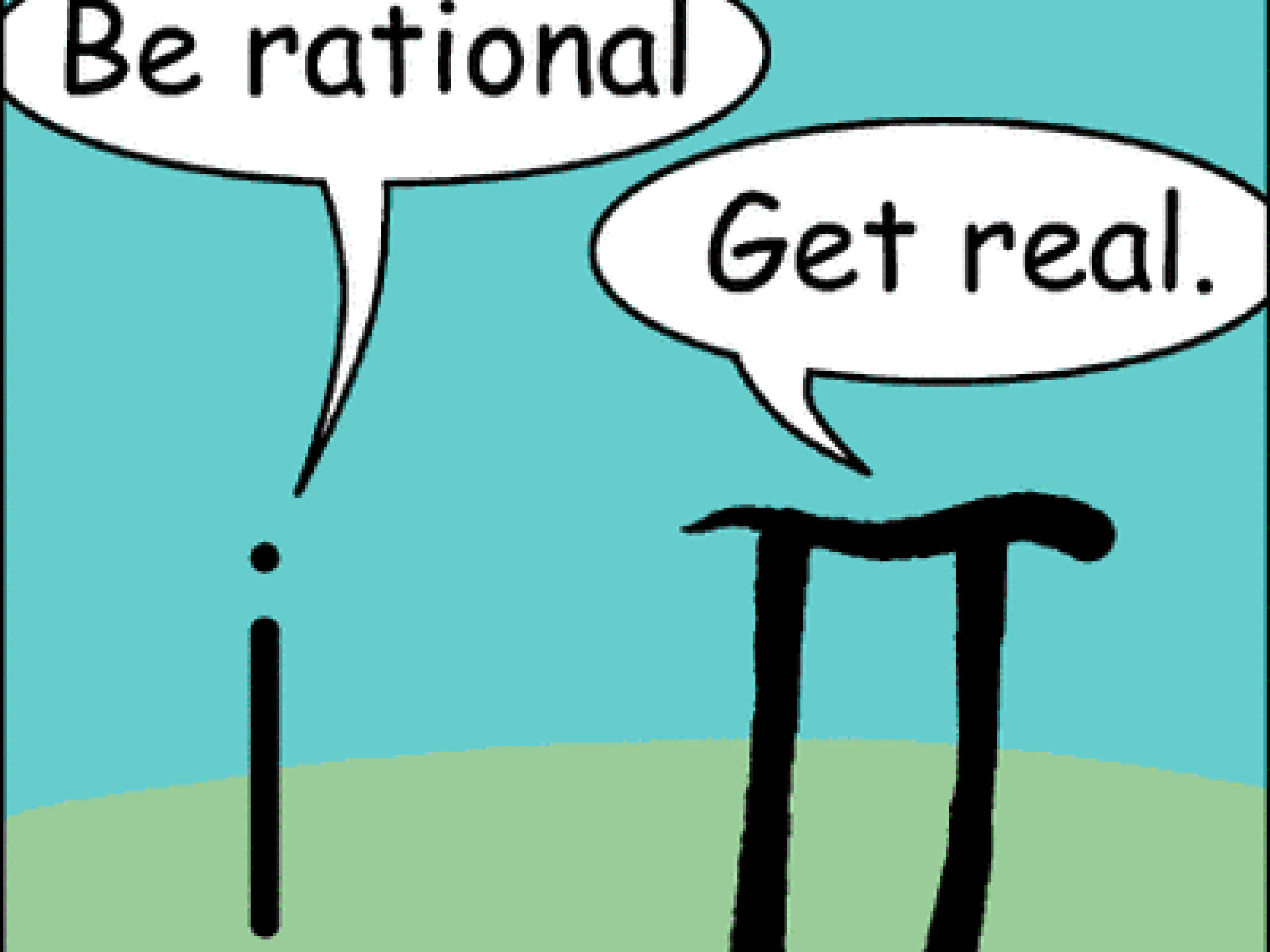


- Iteration
- Summary Statistics
- Probabilities for standard statistical distributions
- Calculations for matrices up to 3 x 3



$$\begin{aligned}
 x &= \sqrt[3]{\left(\frac{-b^3}{27a^3} + \frac{bc}{6a^2} - \frac{d}{2a}\right) + \sqrt{\left(\frac{-b^3}{27a^3} + \frac{bc}{6a^2} - \frac{d}{2a}\right)^2 + \left(\frac{c}{3a} - \frac{b^2}{9a^2}\right)^3}} \\
 &+ \sqrt[3]{\left(\frac{-b^3}{27a^3} + \frac{bc}{6a^2} - \frac{d}{2a}\right) - \sqrt{\left(\frac{-b^3}{27a^3} + \frac{bc}{6a^2} - \frac{d}{2a}\right)^2 + \left(\frac{c}{3a} - \frac{b^2}{9a^2}\right)^3}} - \frac{b}{3a}
 \end{aligned}$$

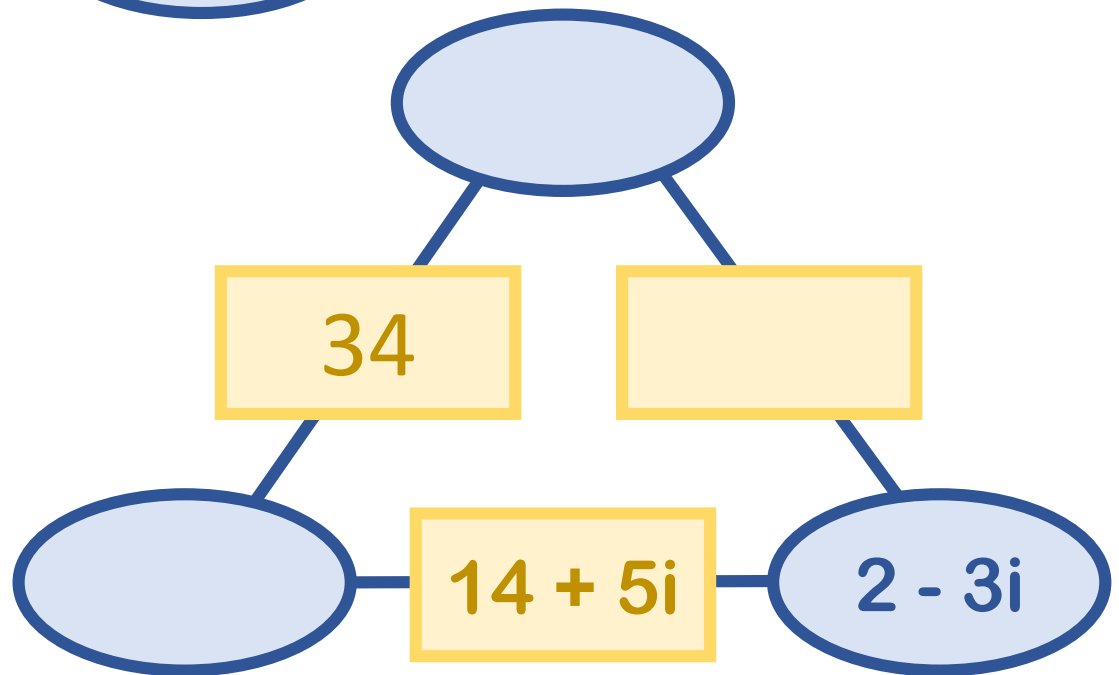
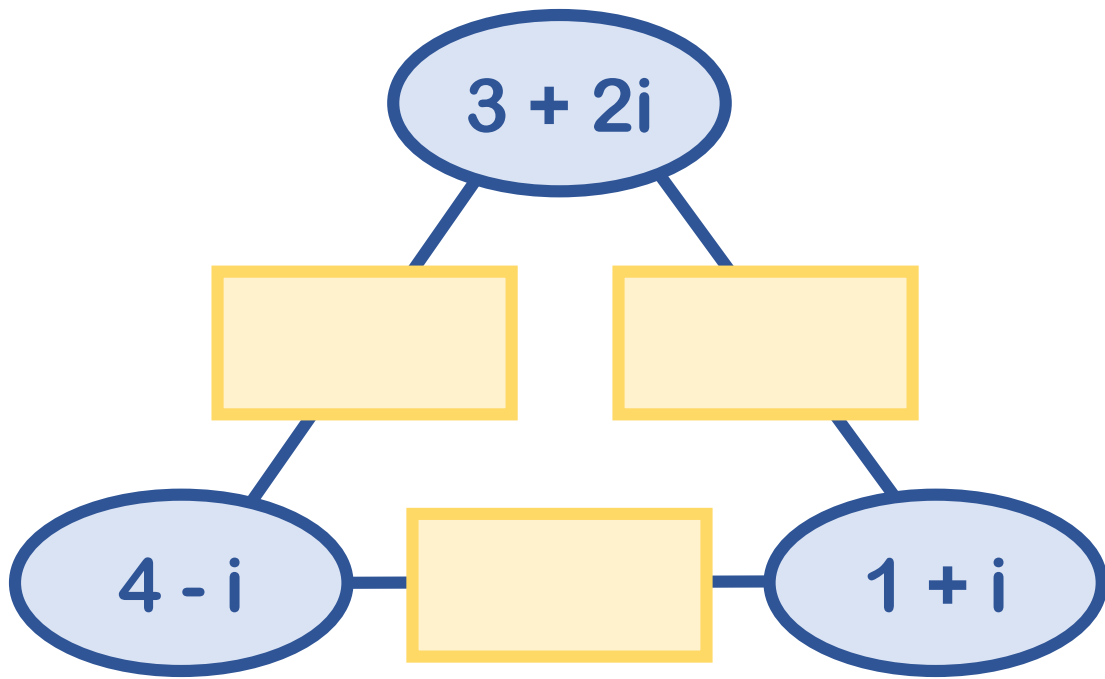
$$x^3 - x = 0$$



Be rational



Get real.



Questions?