Alonzo Church, "An unsolvable problem of elementary number theory"

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You can get a copy of the paper via the Maynooth subscription to JSTOR: <http://www.jstor.org/stable/2371045>

Structure of the paper

The paper is broken into eight sections:

* Section One: [Introduction (pp. 345-346)](https://2017.moodle.maynoothuniversity.ie/pluginfile.php/547197/mod_resource/content/3/Church1936Notes.html#SectionOne)
* Section Two: [Conversion and lambda definability (pp. 346-349)](https://2017.moodle.maynoothuniversity.ie/pluginfile.php/547197/mod_resource/content/3/Church1936Notes.html#SectionTwo)
* Section Three: [The Gödel representation of a formula (pp. 349-350)](https://2017.moodle.maynoothuniversity.ie/pluginfile.php/547197/mod_resource/content/3/Church1936Notes.html#SectionThree)
* Section Four: [Recursive functions (pp. 350-353)](https://2017.moodle.maynoothuniversity.ie/pluginfile.php/547197/mod_resource/content/3/Church1936Notes.html#SectionFour)
* Section Five: [Recursiveness of the Kleene 𝖕-function (pp. 353-354)](https://2017.moodle.maynoothuniversity.ie/pluginfile.php/547197/mod_resource/content/3/Church1936Notes.html" \l "SectionFive)
* Section Six: [Recursiveness of certain functions of formulas (pp. 354-356)](https://2017.moodle.maynoothuniversity.ie/pluginfile.php/547197/mod_resource/content/3/Church1936Notes.html" \l "SectionSix)
* Section Seven: [The notion of effective calculability (pp. 356-358)](https://2017.moodle.maynoothuniversity.ie/pluginfile.php/547197/mod_resource/content/3/Church1936Notes.html#SectionSeven)
* Section Eight: [Invariants of conversion (pp. 358-363)](https://2017.moodle.maynoothuniversity.ie/pluginfile.php/547197/mod_resource/content/3/Church1936Notes.html#SectionEight)

The publication date:

As noted in the first footnote on page 345, the paper was originally presented to the *American Mathematical Society* on April 19, 1935, but then later published in the *American Journal of Mathematics* in 1936. This is fairly common practice in some disciplines, since the author often has time to revise the paper based on the initial reaction between the presentation and the journal publication date. The journal version is the "publication of record", and is thus the one we use in citations. Both the [AMS](http://www.ams.org/) and the [American Journal of Mathematics](http://www.press.jhu.edu/journals/american_journal_of_mathematics/) are still very much alive.

The Author

More information on Alonzo Church can be found at:

* The Bio entry on the [MacTutor History](http://www-history.mcs.st-andrews.ac.uk/Biographies/Church.html) and, of course, [Wikipedia](http://en.wikipedia.org/wiki/Alonzo_Church)
* [Alonzo Church: his life, his work and some of his miracles](http://dx.doi.org/10.1080/01445349708837290) by Maia Manzano, History and Philosophy of Logic, 18: 4, 211-232
* [Alonzo Church: Life and Work](http://www.math.ucla.edu/~hbe/church.pdf), by H.B. Enderton, Introduction to the *Collected Works of Alonzo Church*, MIT Press, not yet published.

A note on page numbers

In the descriptions below for each section, page references refer to the pages of the paper, paginated at 345-363 in the journal.

The line numbers in the sections are given either:

* counting from the top (starting at 1), as in 355[12] (page 355, 12th line from the top)
* or from the bottom, as in 355[-10], (page 355, 10th line from the bottom)
* or a line range, as in 355[5:15] (page 355, lines 5 through 15, counting from the top)
* or a paragraph, as in 355[para 2] (page 355, second paragraph, counting from the top)