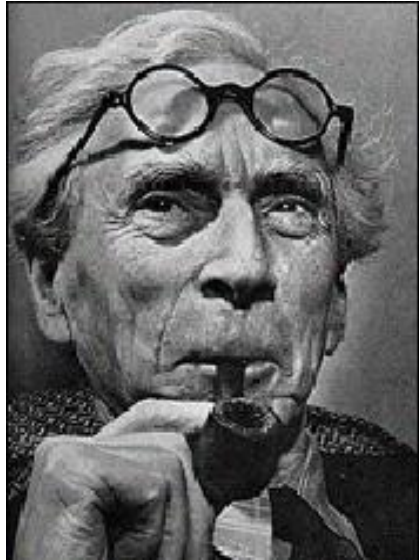


# MATH 351

## VALUABLE REFERENCES



Consequences of  $1 = -1$ :  
 $\frac{1}{2} = -\frac{1}{2}$  (dividing each side by 2)

$2 = 1$  (add  $\frac{3}{2}$  to each side)

*Since I and the Pope are clearly 2 people then the Pope and I are one person (since  $2 = 1$ ).*

*Then I am the Pope, since we are the same person.*

## Videos

[Who's on first?](#)

[\$7 \times 13 = 28\$](#)

[Banach-Tarski paradox, and more](#)

[10 "mind-twisting" paradoxes](#)

[Yesterday's coffee today](#)

[What is Russell's paradox?](#)

[MIT OpenCourseWare](#) for Mattuck's 18.100A (2007)

[Real Analysis lectures](#), Harvey Mudd College (2010)

[Top 10 Proof Techniques Not Allowed](#), MIT

[How to Write \*Good\* Proofs](#) 6.042J, MIT OpenCourseWare

Raymond M. Smullyan, [What is the name of this book?](#), Dover (1978)

[∞ or just -1/12?](#) By [David Berman and Marianne Freiberger](#)

## Films

[The Man Who Knew Infinity](#)

## Textbooks

1. S. Abbott, **Understanding Analysis**, 2<sup>nd</sup> edition, Springer (2015)
2. T. Apostol, **Calculus**, volume I,
3. Bernard Gelbaum and John Olmsted, **Counterexamples in Analysis** (paperback), Dover Publications (2003)
4. W. Gilbert & S. Vanstone, **An Introduction to Mathematical Thinking: Algebra and Number Systems**, Pearson Prentice-Hall (2005)
5. P. Halmos, **Naïve Set Theory**, Dover Publications (1960)
6. R. Hammack, **Book of Proof**, Revised edition, Hammack (2013)
7. G. H. Hardy, **A Course of Pure Mathematics**, centenary edition, Cambridge Mathematical Library (2008)
8. G. H. Hardy, **Divergent Series**, AMS Chelsea Publishing, 2<sup>nd</sup> ed. (2000)
9. J. Marsden & M. Hoffman, Elementary Classical Analysis, 2<sup>nd</sup> edition, W. H. Freeman (1993)

10. George Polya, **Mathematics and Plausible Reasoning, Volume 1: Induction and Analogy in Mathematics** [paperback], Princeton University Press (1990)
11. George Polya, **Mathematics and Plausible Reasoning, Volume II: Patterns of Plausible Inference** [paperback], Princeton University Press (1990)
12. W. Rudin, **Principles of Real Analysis**, 3<sup>rd</sup> edition, McGraw-Hill (1976)
13. J. Michael Steele, **The Cauchy-Schwarz Master Class: An Introduction to the Art of Mathematical Inequalities** (MAA Problem Books Series), Cambridge University Press (2004)

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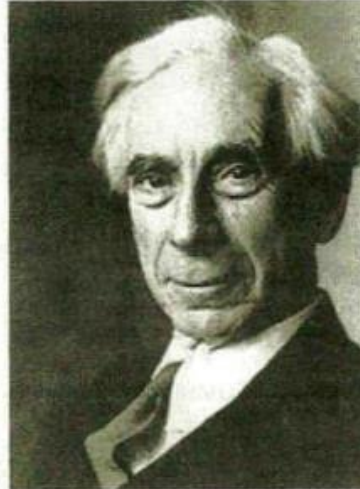
# Bertrand Russell's 'Ten Commandments'

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*The following "Liberal Decalogue" first appeared as part of a 1951 essay by Bertrand Russell in the New York Times Magazine.*

Perhaps the essence of the Liberal outlook could be summed up in a new decalogue, not intended to replace the old one but only to supplement it. The Ten Commandments that, as a teacher, I should wish to promulgate, might be set forth as follows:

1. Do not feel absolutely certain of anything.
2. Do not think it worthwhile to produce belief by concealing evidence, for the evidence is sure to come to light.
3. Never try to discourage thinking, for you are sure to succeed.
4. When you meet with opposition, even if it is from your family, endeavor to overcome it with argument and not by authority, for a victory dependent upon authority is unreal and illusory.
5. Have no respect for the authority of others, for there are always contrary authorities to be found.
6. Do not use power to suppress opinions you think pernicious, for if you do, the opinions will suppress you.
7. Do not fear to be eccentric in opinion, for every opinion now accepted was once eccentric.
8. Find more pleasure in intelligent



Lord Bertrand Russell

dissent than in passive agreement, for if you value intelligence as you should, the former implies a deeper agreement than the latter.

9. Be scrupulously truthful even if the truth is inconvenient, for it is more inconvenient when you try to conceal it.

10. Do not feel envious of the happiness of those who live in a fool's paradise, for only a fool will think that is happiness.

(Source: Freethought Today, May 2010, p. 8)