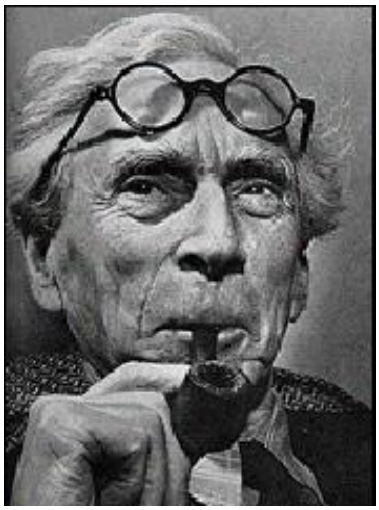
Valuable References



Consequences of 1 = -1:

½ = -½ (dividing each side by 2)

2 = 1 (add 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.

Joseph H. Silverman, **A Friendly Introduction to Number Theory**, 3rd edition, Prentice-Hall (2006)

David M. Burton, **Elementary Number Theory**, 6th edition, McGraw Hill (2007)

David Foster Wallace, **Everything and More: A Compact History of Infinity**, Norton (reissued 2010)

Warren Weaver, **Lady Luck: The Theory of Probability**, Dover Books on Mathematics (1982)

Ivan Niven, **Mathematics of Choice: How to Count without Counting**, MAA (1975)

Paul Halmos, **Naïve Set Theory**, Dover Publications (1960)

Polya, Tarjan, & Woods, **Notes on Introductory Combinatorics**, Birkhauser (1983)

W. Gilbert & S. Vanstone, **An Introduction to Mathematical Thinking: Algebra and Number Systems**, Pearson Prentice-Hall (2005)

Roger Nelsen, Proofs Without Words, pdf, Mathematical Association of America (1993)

MIT 6.042J How to Write *Good* Proofs

Bertrand Russell's Ten Commandments

MIT OpenCourseWare has published multiple versions of 6.042J:

6.041SC	Probabilistic Systems Analysis & Applied Probability	Fall 2013
6.042J	Mathematics for Computer Science	Fall 2010
6.042J	Mathematics for Computer Science	Spring 2010
6.042J	Mathematics for Computer Science	Fall 2005
6.042J	Mathematics for Computer Science	Spring 2005

118 proofs of the Pythagorean theorem

Joseph Silverman, **A Friendly Introduction to Number Theory**

William Stein, **Elementary Number Theory: Primes, Congruences, and Secrets**

Naoki Sato, **Number Theory**

Wissam Raji, **An Introductory Course in Elementary Number Theory**

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

Sue Gordon, University of Sydney, elementary counting problems, Math Learning Center (1994)

Videos

Who's on first?

7 × 13 = 28

Banach-Tarski paradox, and more

10 "mind twisting" paradoxes

Yesterday's coffee today

Great Internet Mersenne Prime Search

Kahn academy set of several short elementary videos introducing permutations

Kahn academy set of several short elementary videos introducing combinations

What is Russell's paradox?

MIT OpenCourseWare, 6.041, **Probabilistic Systems Analysis and Applied Probability,** Lecture 4, Counting, John Tsitsiklis

Films

The Man Who Knew Infinity

Bertrand Russell's 'Ten Commandments'

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.

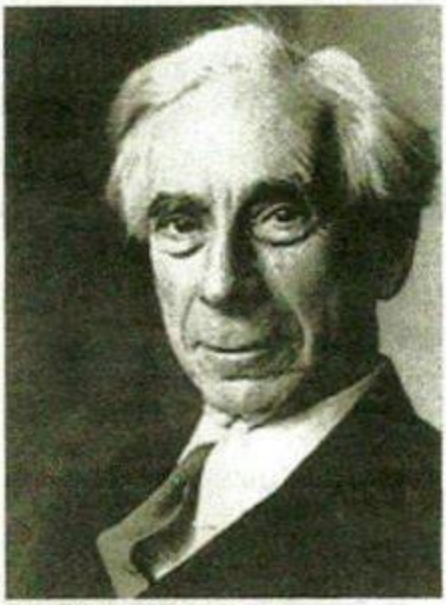
4. When you meet with opposition, even if it is from your family, endeavor to overcome it with argument and not by authority, for a victory dependent upon authority is unreal and illusory.

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



Lord Bertrand Russell

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.