## Journal of Humanistic Mathematics

Volume 3 | Issue 1

January 2013

## Some Contributions to the Sociology of Numbers

Robert Dawson Saint Mary's University - Canada

Follow this and additional works at: https://scholarship.claremont.edu/jhm

Part of the Number Theory Commons

## **Recommended Citation**

Robert Dawson, "Some Contributions to the Sociology of Numbers," *Journal of Humanistic Mathematics*, Volume 3 Issue 1 (January 2013), pages 167-168. DOI: 10.5642/jhummath.201301.16. Available at: https://scholarship.claremont.edu/jhm/vol3/iss1/16

©2013 by the authors. This work is licensed under a Creative Commons License. JHM is an open access bi-annual journal sponsored by the Claremont Center for the Mathematical Sciences and published by the Claremont Colleges Library | ISSN 2159-8118 | http://scholarship.claremont.edu/jhm/

The editorial staff of JHM works hard to make sure the scholarship disseminated in JHM is accurate and upholds professional ethical guidelines. However the views and opinions expressed in each published manuscript belong exclusively to the individual contributor(s). The publisher and the editors do not endorse or accept responsibility for them. See <a href="https://scholarship.claremont.edu/jhm/policies.html">https://scholarship.claremont.edu/jhm/policies.html</a> for more information.

## Some Contributions to the Sociology of Numbers

Robert Dawson

Saint Mary's University - Canada rdawson@cs.stmarys.ca

The ones you notice first are the natural numbers. Everybody knows their names; they are the anchors, the stars, the alphas, the reference points. And of course the rational numbers, who hang out with them, sit next to them in arithmetic class. It must be admitted that some are sidekicks, spear carriers; 11/17 for instance is never likely to make headlines. But the Grade Eight teacher makes sure they all fit in. Then in high school you start to notice the others, the misfits. They have weird names, refuse to conform, are the subjects of sinister rumors: Did you hear about that Pythagorean ritual murder? Yeah, creepy: something like that happens, you bet there's an irrational mixed up in it. You want to watch yourself around them. One numerator, one denominator, that's what I say.

But not all irrational numbers are the same. Consider e: poster child for "It Gets Better". Awkward and poorly approximated for the first few terms, but  $\frac{1}{n!}$  gets small so fast that soon e is accepted among the rationals almost as one of their own. They privately feel that e's exotic air of the transcendental indicates their own cosmopolitan taste. Good marks in calculus, outstanding in Theory of Interest. Ambition: to get an MBA.

And  $\pi$ : happy-go-lucky, Whole-Earth-Catalog spirit, equally at home in Stats or Industrial Arts. No one can really explain why  $\pi$  gets on so flirtingly well with some denominators, *Journal of Humanistic Mathematics* 

Vol 3, No 1, January 2013

the sevenths, say, or the hundred andthirteenths. and not with others. That's just how things are. But the fit's never perfect, and some day you'll see  $\pi$ leaning against a signpost, thumb-out by the side of the highway, living in the moment, destination anywhere, waiting for the wind to change.

 $\varphi$ , long-haired, dressed in black, with a pentacle pendant, and ill-fitting T-shirt depicting Stonehenge or the Pyramids, talks about sunflowers, crystals, numerology, doesn't get on with any fractions at all. It's hard to be sure if they avoid  $\varphi$  or  $\varphi$  them; but every chance for approximation misses by the largest possible margin.

$$1 + \frac{1}{1 + \frac{1}{1 + \frac{1}{1 + \dots}}}$$

is the loneliest number.