

Math 212, Lab 9: Writing assignment on the meaning of $2^{\sqrt{3}}$

In this lab you will practice mathematical writing for a non-technical audience. The goal is clarity and simplicity of exposition. The writing assignment is based on 7.3.22 in the text:

You are walking down the street and someone asks you about the meaning of $2^{\sqrt{3}}$. Using the function $y = 1/x$, try to explain the meaning of $2^{\sqrt{3}}$ as much as possible.

The way you would explain this “to yourself” is probably not the way you would explain this to the average person on the street, and so it will probably be helpful to write several drafts.

You might find it helpful to look at Annalisa Crannell’s Guide to Writing Mathematics. She has some helpful tips regarding writing for a non-technical audience.

In particular, she recommends (and I do too) that, after restating the problem, you give a very brief (and not at all technical) explanation. For this exercise, this means that you should try to give a simple explanation of the meaning of $2^{\sqrt{3}}$, with pictures, that does not use the words “exponential” or “logarithm.”

After your first, very simple explanation, you should give a more careful explanation (saying, “if you’re interested . . .”). The more careful explanation should be along the lines of what we discussed in class on Monday, using the natural logarithm.

Of course, it goes without saying that your grammar and spelling should be correct, and your mathematical expressions should be typeset.

You may work in groups of two or three on this writing assignment. Final drafts (hard copy, please) are due in lab next week.