

Logic Versus Lucidity.

Many people believe that the essence of mathematics is logic: you have to know all the rules and follow them — an exercise in obedience, yuk! In reality, however, the essence of mathematics is critical thought, a relentless search for lucidity — an exercise in systematic doubt. As so often in human affairs, a subtle difference is here turned into an opposite.

Like a smelting furnace, math looks frightening — *con rason*: it burns away the bullshit.

Informal Mathematics.

This does not mean “casual”, much less “sloppy”. Where would we mathematicians be without informal logic and set theory? Up the creek without a paddle, that’s where. Similarly, high school students are stymied by the language barriers of formal (i.e. rule and formula oriented) mathematics “teaching”. They need to break through the syntax to the meaning.