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Commercial Mathematics

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I love commercials. Always have. By "commercial" I am referring to videos, short in length (e.g., 30 seconds), that are made and paid for by a company looking to promote something (e.g., a product, service or idea) by airing them during a break in scheduled television programming. Commercials, also known as ads, breaks or spots, often get lumped under the term *television advertisement*, which helps to demarcate them from those annoying videos you can't wait to skip before being allowed to watch a YouTube video.

At the moment, my favourite commercials are part of an advertising campaign by the Progressive Corporation, which is an insurance company based in Mayfield, Ohio, USA. In them, Life Coach Dr. Rick tries to help/save new homeowners from becoming their parents. In one commercial, for example, Dr. Rick is called to try and help a proud new homeowner that is, yup, cleaning his trash cans. In other commercials, Dr. Rick takes new homeowners to different scenarios (e.g., the airport, a Big Box store or waiting room) and teaches them not to use the speaker phone, not to stare at a person with blue hair and to try and keep to themselves while waiting in a room or standing in a line. If you're wondering how insurance is added to the mix, Progressive notes that while they can't help you from becoming your parent(s) they can help you save on home and auto insurance. Silly, sure, but Progressive definitely has my attention. To date, Dr. Rick appears in 39 commercials for Progressive and, to me, everyone of them is excellent.

Concurrently, my least favourite commercials involve mathematics. Take Little Caesars, the pizza chain, and their Three-Meat Treat advertisement where NFL football player Amon-Ra St. Brown, while standing in front of a portable black board full of what looks like pizza-based mathematics, says to the camera "Meat plus meat plus meat". The announcer in the commercial then replies with "Wow, Professor Amon-Ra, you're a great mathematician". Amon-Ra clarifies, however, he's "more like [a] Meatmatician", which, I'm assuming, is a mathematician that works for Little Caesars' in the field of three-meat treats, in general, and bacon, Italian sausage and pepperoni, in specific. For the record, Little Caesars, historically, has had some amazing commercials, but, for me, this one just misses the mark.

In an entirely different commercial, but in a very similar theme, "Endless Shrimp" recently returned to Red Lobster, the chain of seafood restaurants, but only for a limited time. To help advertise their Endless Shrimp promotion, Red Lobster aired a television commercial, that asks, "What's more endless than infinity?". On the face of it, that's an ok question. Soon, however, a non-breaded shrimp (on the left) and a breaded shrimp (on the right) overlap the outer curved edges of a glowing infinity symbol dominating the majority of the television screen, and the commercial then answers its own question: "Shrimpfinity". No time for productive struggle in a 30 second television commercial, I guess. Shrimpfinity, sure, is a decent portmanteau, but, and I'm not sure why, I was expecting a bit more in a commercial from an international sea food company and restaurant chain. Red Lobster, like Little Caesars, is missing the mark, for me, in terms of commercial mathematics.

The least favourite of all my least favourite commercials involving mathematics, by far, is the recent "Parent Math" campaign for the 2027 Chrysler Pacifica. For those of you that haven't seen the commercial, it begins with overlaying a number of equations, in white ink, over a shot of two parents driving the very popular vehicle. The announcer then proceeds to describe some examples of Parent Math (e.g., how packing light ironically equates to many suitcases, using nonstandard units of measurement regarding space, and how the shortest distance between two points is not a straight line) while different features of the van are presented. The commercial ends by declaring that everything "adds up perfectly" thanks to Parent Math, which cues another set of equations, in white ink, that float in, around and over a bird's eye view of the van. Now, if you're thinking that my distaste for this commercial stems from the various equations that float around at the beginning and end of the commercial, that's a good guess. However, there's an entirely different reason for my vociferous view regarding this commercial.

The use of "Parent Math" in the 2027 Chrysler Pacifica campaign, I contend, is a simulacrum of "Girl Math". For the uninitiated, the origins of Girl Math can be traced to an FM radio show over in Auckland, New Zealand. Specifically, ZM Radio's *Fletch, Vaughan & Hayley*, the breakfast show, which runs from 6:00 am to 10:00 am weekdays. On the show, circa the summer of 2023, Hayley Sproull (and two then producers, Shannon and Carolyn [sp?]) introduced the notion of Girl Math when explaining that, yes, they were getting their hair done, but they were, basically, getting it done for free; and, a similar reasoning was employed when warranting the purchase of an expensive hand bag. The humour of the justifications and absurdity of the outcome was apparent and Girl Math, right there, right then, became a thing.

The day after, they discussed soft launching Girl Math as a bit on the show (e.g., having a title, dedicated time segment, musical introduction, etc.) where individuals would text and/or call into the show describing purchases callers had made or were about to make, which were then cleverly and entertainingly justified and rationalized with, what I'll call, a certain financial logic. Four hundred dollar hair extensions for a wedding, on the one hand, were justified relative to the cost of needing to get remarried for better photos because of not getting said hair extensions the first time and, on the other hand, how little the extensions were going to cost when considered per inch. By way of another example, the cost of attending all four nights of Taylor Swift's Eras Tour was softened through a discussion of four-for-one flights, watching free video concerts, Vienna, Austria and how being at the concert is, well, priceless. Soon, the bit took off and, thanks to the internet, Girl Math began to spread all over the world.

I think that Girl Math resonated, for me, because I realized that I, myself, practice a version of Girl Math during my conference travels. Thanks to my Professional and Research Funds, I'm able to travel to a few conferences per year. No longer looking to procure external funding, however, I need to stretch my funds to try and attend more, as opposed to less, conferences year over year and with limited funding. To achieve this goal, I employ what I now call, "Per Diem Math". Turns out, many of the central tenets of Girl Math are also central tenets of Per Diem Math.

I should mention, here, that Girl Math really exploded worldwide when snippets of Girl Math segments were posted on ZM Radio's social media platforms (e.g., TikTok, etc.). Soon, examples of Girl Math permeated social media. In doing so, certain rules, examples and themes were documented and categorized. According to Girl Math, paying for something with cash means you're getting it for free, for example. Sure, sure, paying for something with physical cash isn't necessarily free, but feels free because one's bank account does not dip with the purchase in real time because the removal of the cash has already taken place prior to the purchase. The money has, essentially, already been spent.

I get it. In terms of Per Diem Math, by way of a parallel, I am allocated, during conference travel, to $10, $18 and $23 each day for, respectively, breakfast, lunch and dinner. As I am apt to do, I head to the bank before I travel for my conference at take out $51 ($10 + $18 + $23) times however many days I am travelling because I will be reimbursed that amount after the con-

ference. In this manner, I have a "free" $10 every morning for my breakfast. Taking things a step further, if I decide to exercise some intermittent fasting during the morning or if I've packed a few protein bars to go with some crappy, in-room hotel coffee, then I can usually make it to the first nutrition break of the day for the conference, which means, in essence, that I have saved spending a free $10, which, it can be argued, means that I've made $10. Over a five day conference, I've made $50. Usually, however, said $50 starts to burn a hole in my pocket and instead of coming home with extra Per Diem money, the $50 that I spend buying beer for my colleagues at the pub or a nice bottle of wine for the room with friends is deemed "free", which makes it taste all the better. Cash meaning free is not the only central tenet shared between Girl and Per Diem Math.

Cost per wear or cost per use is central to Girl Math. Sure, an item of clothing (or whatever you are buying) can be expensive. If you consider the cost per use, though, it rationalizes a very expensive item, like a thousand dollar coat that gets worn regularly over a five or ten year period, and drops the cost to a reasonable cost per use for the item. Stated in Per Diem Math parlance, staying in accommodations that are close to or where it is easy to get to the conference venue, say either within walking distance or with a simple ride on public transit, helps stretch Professional and Research Funds. Sure, I could take a taxi or a rideshare to and from the conference (and to and from the airport) and, yes, that money would be reimbursed after the conference. However, every time that I am able to walk or take public transit to and from the conference venue or to and from the airport then I am, in essence, saving money for my next conference where, sure, I'll still have to walk or take public transit, but the alternative would be not even attending that next conference. Cost per use, then, applies to not only goods (e.g., clothing) but services (e.g., transit), as well.

Part of the joy of Girl Math is the creativity, the logic, the humour, and the absurdity in rationalizing particular purchases or spending behaviours. When the central tenets – whether it be items on sale equating to profit (because the money you've saved can be elsewhere spent), advanced payments or refunds equating to free money (because that money was already spent or spent money has come back), or spending a bit more money to get over the free shipping threshold (I mean, that just makes sense) — are couched within creative and relatable examples, Girl Math is firing on all cylinders. However, as is usually the case these days, the very Internet that helped propagate Girl Math all over the world was also used to tell said world that Girl Math was, actually, a new blight on society.

Turns out, the lighthearted, creative financial logic behind Girl Math was soon labelled a scourge. Who knew?! Not me. See, while I was having fun and attempting to relate Per Diem Math to Girl Math more and more, the rest of the world turned on Girl Math and it started to encounter widespread criticism. Sure, while some people in finance were explaining how certain central tenets were fiscally sound and akin, for example, to amortization, they were drowned out by other voices that called Girl Math a disaster, a problem, and something that could ruin one's life. To be clear, I fully agree that harmful debt is harmful and reinforcing stereotypes can also be harmful; however, Girl Math was never intended to be the core pillar for one's financial plan in life. In addition, Girl Math begat "Boy Math" and "Workplace Math" and "Boss Math" and many other maths, but the clever financial logic angle was quickly pushed aside for the ills associated with male stereotypes and issues associated with the workplace and those who are in charge. It was at this point that my efforts in keeping up with and focus on Girl Math were also pushed to the side and I moved onto the next big math story. Until, that is, a 2027 Chrysler Pacifica drove across my television screen with weird floating equations while I was watching a hockey game.

Listening to those early Girl Math segments on ZM Radio, Girl Math was its own genre. It even started a cultural movement, arguably. Girl Math was new, raw, unfiltered, energetic and entertaining. Sure, it made you laugh, but it also made you think. Perhaps the best way to describe Girl Math, in the early days, was "Punk". However, and it's a story and a lesson as old as time itself, once you put something out into the world, whether an idea or art or music, Punk or not, you relinquish ownership over how others interpret and use said ideas, art or music. Look, I never thought that I would hear "Blitzkrieg Bop" by the Ramones in a commercial for Diet Pepsi. I never, ever thought that I would hear "Rock and Roll" by Led Zeppelin in, of all things, a commercial for Cadillac. I also never thought that I would see Girl Math used in a car commercial. Then again, with respect to that last one, I didn't. To be clear, Parent Math is not Girl Math. Not even close.

Akin to how Facebook plummeted in popularity when everyone's parents started using the platform, I originally thought that the "Parent Math" campaign for the 2027 Chrysler Pacifica had, officially, killed Girl Math. The more I think about it, Girl Math isn't dead. Afterall, unlike Led Zeppelin and the Ramones, the founders of Girl Math were not paid by Chrysler (to the best of my knowledge), which means they didn't go corporate, they didn't sell out. Girl Math can still be Girl Math if presented properly.

Please keep Girl Math in mind if you ever consider bringing commercial mathematics into your math class for financial literacy/education. If you're looking, perhaps, to bring in a more sanitized, safer, corporate version of Girl Math, like Parent Math, know two things. First, it'll probably be, as the kids say, an epic failure. Second, I get it, we take less risks as we get older in life. Maybe it's time to give Dr. Rick a call. Afterall, not even Progressive Insurance can protect you from becoming your parents.

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