

Gregory stared in astonishment, he had successfully summoned a gremlin. At first, he had assumed the book was rubbish. The authorities would never let a negotiator's textbook out into the world, right? He looked away from the creature and consulted the dusty tome as the gremlins black eyes considered him in the dim candlelight.

“After a gremlin is summoned, the negotiator must reach an agreement with it and execute said agreement. While gremlins have been said to be very smart, a newly summoned gremlin will only understand the simplest of concepts. Show it what you want summoned, where you want it, how much, and how long until you will repay the gremlin. Be warned, gremlins charge increasing interest with each day you request, such that one day may only require double what you requested, but two days may require three times as much material.”

Gregory met the gremlins nearly malevolent stare, eyeing it's twisted, grey body as it shot him a shrewd grin. He broke eye contact with the spirit once more, looking back at the book.

“Gremlins stick to a predictable set of rules and behaviors when first summoned. They take instruction in a specific order, what one may call the grammar of the spell, though some negotiators have reported success in modifying this for a gremlin through extended summoning and subsequent teaching. This order or grammar is substance, amount, location, duration, and length of duration. This is most easily done by circling each of these sets.

In the case of summoning a coin, the gremlin will have a coin placed in front of it, and this coin will be circled. If one additional coin is desired, into a separate circle, a single small pebble may be placed. If two additional coins are desired, then two pebbles must be placed in this second circle. A third circle may be left empty, and simply tapped in order to indicate location. This can be anywhere within the eyesight of the gremlin, though some negotiators have reported success in training a gremlin to use a specific location that it has seen before. Finally, there is duration and length of duration. By default, a gremlin will use one day before it comes to take its due. But, by showing it such things as an hourglass draining from start to finish, different units of time may be added to its repertoire. Then, by placing more pebbles in the last circle, a number of these units of time may be specified. Returning to our example, if the 2 summoned coins were to be repaid in 2 days time, two stones may simply be placed in the last circle, leaving the fourth circle empty so that the gremlin will use its default period of one day.

Once these preparations are completed, look the gremlin in the eyes. If it accepts your terms, it will nod, you will receive your 2 coins, and the gremlin will disappear. In two days time, you will have 6 coins taken from you. If you do not have 6 coins, you may lose 6 coins worth of goods. Or your family might lose 6 coins. Or any future coins you may come into may disappear, until you have repaid your debt (and likely a late payment penalty as well). Or any other number of recoupment methods. Many a negotiator, looking to cheat a gremlin, has laid himself, his family, or his area low when a debt has come to be paid.”

Gregory eyed the gremlin again, this time giving it his own calculating expression. The things could learn, could they? But what use was that, if he lost the gremlin as soon as it completed their agreement? It was certainly a problem to be solved. But for now, he needed to verify that everything the book said worked.

He laid out 5 circles, and into each placed, respectively, a cup of water; a single pebble (gathered from the street outside his apartment); a bowl to catch the water, which he indicated with a quick tap of his finger; nothing; and another singular pebble (from the same place as the first. A glance at the gremlin and it nodded once to him before disappearing.

The disappearing wasn't particularly magical. No puff of smoke or flash of light. Just an absence of gremlin that didn't quite register until Gregory noticed that it was gone, then realizing that it had been gone for a few seconds and he had simply failed to notice at first. This was followed by the nagging sensation that he felt it had disappeared before he'd even finished making the deal, despite knowing that he'd seen it nod in agreement in order to actually strike the deal in the first place. This all became so much background thought as Gregory noticed another cup of water sitting in the bowl.

This was not quite what he'd anticipated. He hadn't wanted a second cup so much as he'd simply used the cup to hold the water that he was really trying to summon. Furthermore, it wasn't just *A* cup holding the water. It was *THE* cup. The same simple pottery cup, with the chip around the rim that he constantly had to drink around. He groaned as he realized this meant he'd be out of a cup this time tomorrow. Water was free, cups were, well, not. No matter, this was one of the reasons he had used the chipped cup, not that the others were much better. He began taking notes and making plans, not stopping until the first light of dawn was beginning to break over the city.

It took him several days (or, more accurately, sleepless nights) and several more negotiations before he felt comfortable enough with the basics to begin plotting. The book said that many negotiators had been "laid low" by trying to cheat gremlins. Even he had heard the stories of negotiators who had asked for something as simple as the cup of water he had last night, postponing the repayment for a ridiculous amount of time, such as a hundred years. And then, a hundred years later, the negotiator, though long dead, would pay his debt by casting his homeland into a drought that might last a generation. Such incidents had caused the kingdoms and the Negotiators Guild to hunt wayward negotiators down, and to seek to renegotiate with their gremlins. The gremlins didn't like this, and would often charge ridiculous early payment fees, but it was often better than letting them have their way at a later date. This was assuming they could resummon the same gremlin, a notoriously unreliable feat. Sometimes the indiscretions of a rogue negotiator just had to be dealt with.

Gregory did not intend to have to ever repay his debt. Before he had obtained his somewhat contraband book on becoming a negotiator (that kind of literature was, for obvious reasons, somewhat controlled by the authorities) he had worked at a university. He may have been a

mere kitchen assistant, but he had paid attention when the students and faculty talked to each other. And there, he had learnt of a concept called infinity. Sure, teaching a gremlin what infinity was would not be easy, but if he could promise to repay his debt after "infinity many" days, he'd get off Scot free. Sure, it'd mean that he would owe an infinite amount of whatever he asked for, but that would be the problem of whoever came after the universe ended.

As he had supposed, teaching the gremlin that there was more to counting than just piles of pebbles was difficult, but all told the creature was a quick study. He started by showing it piles of pebbles labeled with the appropriate numeral, 0 through 10. After a few missteps, he succeeded in making it understand decimal notation. Then came the difficulty of infinity. He finally settled on writing out a sequence of numbers; "1, 2, 3, 4, n, 6, 7, 8, 9." The gremlin looked insulted as it traced out a 5 on the paper they were using. "2, 4, 8, 16, n." The gremlin paused for a second, but quickly wrote down 32, looking ever so slightly more gratified this time. Now Gregory was beginning to grin himself. "1, 2, 3... ...n,8,9." This time the gremlin actually huffed at him under its breath as it inked a 7. Gregory's grin only widened. "1, 2, 3... ...n." The gremlin stared at the paper for a solid 3 seconds before looking up at him distrustfully. It then looked back down at the paper and wrote a tentative "974." Gregory blinked in confusion before realizing that, until this point, the largest number they had worked with had indeed been 974. He frowned for a moment before straightening his back and setting his quill to the paper once more. "974, 975, 976... ...n." The gremlin widened its eyes until the all black orbs were nearly half spheres bulging from its head. It quickly jotted down 999 and leaned back, a visible sheen of sweat now appearing on its body. Gregory leaned over and wrote the next set of numbers. "999, 1000, 1001... ...n." The gremlin shuddered in place for a second, then wrote down "n=n." Gregory very nearly giggled at that. Then he frowned, he needed some notation for this, he didn't want to have to define n every time. So he wrote down one last line. " $n = \infty$ ." The gremlin hardly hesitated at all now, as it wrote down "1, 2, 3... ... $\infty$ ." Then the gremlin moved the quill down a line and wrote again "2, 4, 8... ... $\infty$ ." This time Gregory really did burst out into ecstatic laughter. Morning was fast approaching, but he knew he would not be able to sleep any time soon. Now he just needed to solve the problem of the summoned cup and the gremlin disappearing once an agreement was reached.

The summoned cup proved easy enough, once he'd thought through it. By introducing a sixth circle into the gremlin's grammar, and making that circle represent the null set, he was able to put items into the circle and successfully get the gremlin to ignore them. It took several months of teaching gremlins, reaching agreements, summoning new gremlins and teaching them, but he finally had a system he was satisfied with, as well as a curriculum for teaching new gremlins. The problem was that he didn't want to spend the better part of a week teaching a gremlin before he could successfully reach an agreement. And so he hatched his next plan. After teaching the new gremlin all of the information it needed to know, he drew the 6 circles. The second circle had a number 2 written inside of it. The third was larger than normal, but he tapped it all the same, the gremlin nodding along impatiently. The fourth he left empty, and the sixth he drew a quick " $\infty$ " inside. The gremlin shuddered as it saw the symbol, but grinned as it ticked imaginary repayments off its long, knobbly fingers. The only other change was the first

circle. For this, Gregory had drawn the circle around the gremlin itself. The gremlin looked slightly discomfited by this turn of events, but shrugged its shoulder, met Gregory's gaze, nodded once, and disappeared. Two more identical gremlins instead sat in the third circle. Gregory approached one of them, and set down a piece of paper and an inked quill. The paper had a single line written on it. "1, 2, 3... ..n." The gremlin looked up at him distrustfully, before snatching up the quill and penning " $n = \infty$ ." It threw down the quill and shook its head in distaste. They never had liked being tested on something that they obviously already knew. But Gregory didn't even care. He was definitely a rogue negotiator now, but what did he care? He had taught a gremlin about infinity.