

Calculations

“We deposit money from a fund that doesn’t exist into a box we don’t know about in a bank we’ve never set foot in.”

—Geoffrey Rush

An abrupt hush sweeps across the room. You put your paper aside and look up, expecting a very late lecturer, but instead you see a rather tall man with greying hair, panting as he runs down the aisle brandishing an ancient-looking abacus. He explains in heavily accented English that your regular lecturer is away, and promptly begins a detailed dissertation on abacus technique. Eventually, he pauses mid-sentence and takes a moment to squint at a row of disinterested faces.

“I am sensing that you young students do not appreciate the intricacies required to master the abacus. Perhaps I can convince the class with a practical exercise.” As he turns around to write it on the whiteboard, he continues, “And there will be a very special prize for the first correct solution.”

A murmur quickly spreads through the room, now consisting entirely of students too enthusiastic to run off. A deluge of guesses quickly ensues, but with each incorrect answer, the tall substitute lecturer seems to grow more... Disappointed? Perplexed? As you struggle to work out what his facial expression means, both he and the students concede a mutual defeat and slink out of the lecture theatre. Despite conventional wisdom suggesting that you should likewise leave, a niggling voice in the back of your head tells you that you’re only one step away from a very mysterious prize.

$$\begin{aligned}
 &(61 \times 29 \times 5 \times 2 \times 2) \\
 &\quad (17 \times 13 \times 3) \\
 &(3881 \times 1063 \times 13) - 1 \\
 &\quad (71 \times 13 \times 5) - 1 \\
 &(29 \times 19 \times 7 \times 2) + 1 \\
 &\quad (863 \times 31 \times 2) + 1 \\
 &\quad (19 \times 3 \times 3 \times 3) + 1 \\
 &\quad (1409 \times 2 \times 2) + 1 \\
 &(239 \times 17 \times 11 \times 3 \times 2 \times 2) + 1 \\
 &\quad (71 \times 13 \times 5) \\
 &(143833 \times 223 \times 3 \times 3 \times 2) + 1
 \end{aligned}$$

$$(5237 \times 83 \times 29 \times 5 \times 3 \times 2) + 1$$

—Corey Plover