

AMath Tea Time — Puzzle #9

29 September 2015

Problem

(Thank you to Ben Segal for submitting this week's puzzle!)

Last night I sat behind two wizards, Azemelius and Bartholomew, on a bus. I heard this conversation:

Azemelius: *I have a positive integer number of children, whose ages are positive integers. The product of their ages is my own age, and the sum of their ages is the number on this bus.*

Bartholomew (looking at the number of the bus): *Perhaps if you told me your age and how many children you had, I could work out their ages?*

Azemelius: *No, you could not.*

Bartholomew: *Aha! At last I know how old you are! (Bartholomew had been trying to find Azemeliuss age for a long time.)*

What is the number of the bus?

Hints

If you have any puzzles to share then send them my way at cswiercz@uw.edu!