FIBONACCI TO THE RESCUE

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Every year my PUZZLER problem in the December issue of the magazine Canadian Consulting Engineer is made the subject of a contest, the prize being won by the first acceptable theoretical solution that is opened on a specified date. This last December, in 1969, the problem was as follows:

Charlie was through with the paper. He'd read the comics, studied the sports pages, and even glanced at the headlines of world news. And now he was doodling on the margin of the front page.

"It's funny about all our ages," he said suddenly. "Yours is in the same proportion to mine as mine is to one less than our two ages combined."

Mary had been watching the two children playing with the boy's new scooter on the sidewalk outside. "What of it?" she asked. "A lot of fractions."

"I mean the complete years." Her husband smiled. "But the funny thing is that the same applies to the ages of the two kids."

Do you know Mary's age?

Many acceptable solutions were received from readers. But one of these, not the first opened however, was most ingenious in its use of the Fibonacci concept for dealing with the relevant diophantine equation. For this reason, I give it in full, as received from the originator, Michael R. Buckley of Toronto, Canada.

We notice Fibonacci lurking between the lines. Let Mary's and Charlie's ages be x and y respectively. Then:

$$\frac{y}{x} = \frac{x + y - 1}{y} .$$

Obviously, the larger x and y are, the more golden becomes their ratio. The simplest solution is x = y = 1: here x and y being

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