

MATH FOCUS AREAS:

- Number patterns
- Algebraic reasoning

Birthday Math

Lara Ramsey



STOCKBYTE/THINKSTOCK

Have you ever noticed an interesting pattern with numbers, but were not sure how or why it worked?

Last year, my mom turned 69, and I noticed something curious. She was turning 69 and I was born in 1969. In addition, she was born in 1945, and I am 45 years old. When I pointed out this happenstance to her, I wondered, "Is it a coincidence?"

Then, my mom realized that my younger sister was born in 1972, and when my mom turns 72, my sister will be 45. Those numbers, 4 and 5, are the last two digits of my mom's birth year. What is going on?

Is this interesting pattern merely a

coincidence because of the numbers 1945, 1969, and 1972, or could this pattern work for other parents and children born in different years? Answer the questions below to find out.

1. Will you always be able to find a year when a child turns the age of the year the mother was born and the mother turns the age of the year her child was born? Will this be true for children and their fathers?
2. Would this pattern hold true between two friends of different ages? For example, if person A is born in 1940 and person B is born in 1943, will person A turn 43 the same year person B turns 40?
3. Would this pattern hold true if the birth of a parent and the birth of a child crossed from one century into the next?
4. Is it possible to predict what year this number pattern will take place for two people?

Edited by **Kevin Dykema**, kdykema@mattawanschools.org, a teacher from Mattawan, Michigan, and **Crystal Kalinec-Craig**, crystal.kalinec-craig@utsa.edu, a mathematics educator in San Antonio, Texas. Manuscripts should show how math is used to solve a real-life problem, preferably in the context of one's profession, and should be no more than 300 words. Submit manuscripts through <http://mtms.msubmit.net>.

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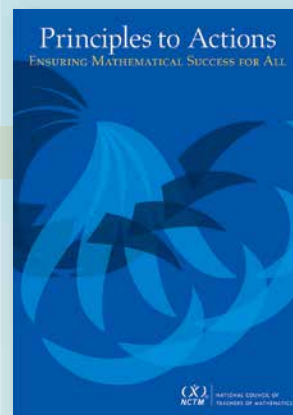
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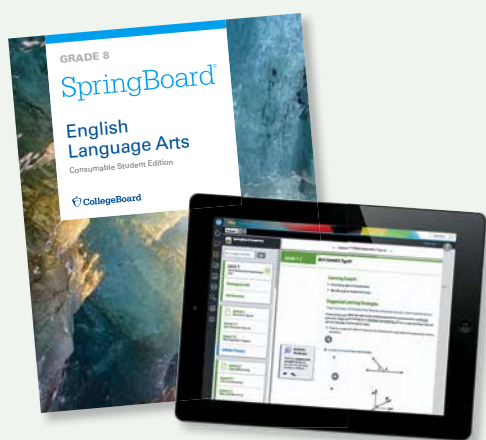


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