

Family Tree

Ramona was examining the family tree her mother had created using Ancestry.com, a website you can use to explore your genealogy. When examining a family tree, the branches are many. Ramona is generation "now." One generation ago, her 2 parents were born. Two generations ago, her 4 grandparents were born. Three generations ago, her great-grandparents were born. Four generations ago, her great-great-grandparents were born. Every time she went back another generation, another "great" was added!

1. How many of Ramona's great-grandparents were born 3 generations ago?
2. How many of Ramona's "great" grandparents were born 10 generations ago?
3. Explain how Ramona could figure out how many "great" grandparents were born in any number of generations ago.
4. Is the number of "great" grandparents in any generation a function of the generation? Why or why not? How do you know?