

## I Have How Many Great-Great-Great-Great-Great Grandparents?

In working with family information, we always get excited when a new piece of information is found. We get to add a new limb or a new leaf. It is amazing how fast and large a family tree can be. We are generally lucky if we can go back before our Great-Great Grandparents. Most people never really look at how many of a generation you have, and there is a good reason. The number of parents for the next generation grows exponentially ( $2^{n-1}$  where  $n$ =generation starting with you as 1). What do I mean by this? Your tree starts with you as 1 person. You have 2 parents (we are not including step parents). Your parents each have 2 parents. That makes 4 Grandparents. Still easy to manage and understand. Each of your Grandparents has 2 parents. So that makes 8 Great Grandparents. Each Great Grandparent as 2 parents. So now you have 16 Great-Great Grandparents. Now you are starting to see how your tree grows exponentially and we have not included any siblings for any of the generations. Below is a chart that lays this out visually.

Starting with You [ $2^{1-1}$ ]	1
Parents [ $2^{2-1}$ ]	2
Grandparents [ $2^{3-1}$ ]	4
Great Grandparents [ $2^{4-1}$ ]	8
Great-Great Grandparents [ $2^{5-1}$ ]	16
Great-Great-Great Grandparents [ $2^{6-1}$ ]	32
Great-Great-Great-Great Grandparents [ $2^{7-1}$ ]	64
Great-Great-Great-Great-Great Grandparents [ $2^{8-1}$ ]	128
Great-Great-Great-Great-Great-Great Grandparents [ $2^{9-1}$ ]	256
Great-Great-Great-Great-Great-Great-Great Grandparents [ $2^{10-1}$ ]	512
Great-Great-Great-Great-Great-Great-Great-Great Grandparents [ $2^{11-1}$ ]	1024
Great-Great-Great-Great-Great-Great-Great-Great-Great Grandparents [ $2^{12-1}$ ]	2048
Great-Great-Great-Great-Great-Great-Great-Great-Great-Great Grandparents [ $2^{13-1}$ ]	4096
And So On	

Now you can see how your family tree can grow quickly.