

On my last birthday, my friend said to me:

"In 15 years' time, your age will be the square of your age 15 years ago!"

Can you work out how old I am?

This got me thinking...

Was there ever a time in my life when I had other birthdays that were special in this way?

Could I have said:

"In 3 years' time, my age will be the square of my age 3 years ago"

or:

"In 4 years' time, my age will be the square of my age 4 years ago"

or:

"In 5 years' time, my age will be the square of my age 5 years ago"

or:

"In 6 years' time, my age will be the square of my age 6 years ago"

or...?

Can you make any generalisations about which birthdays are special in this way?

Can you prove your findings?