

Counting to a Trillion!

Leo popped into The Spot one day and whilst we were talking, he said, “I wonder how long it would take to count to a trillion?” Well, we couldn’t just leave it there. Here goes!

Step One – Work out how big a trillion is.

- A trillion is 1,000,000,000 – or ‘one thousand million’ or ‘one thousand, thousand, thousand’.

Step Two – Work out how long a trillion seconds is.

- Get your calculator! The equation to work this out is as follows –

1,000,000,000 (seconds)

÷ 60 =

16,666,666.7 (minutes)

÷ 60 =

277,777.8 (hours)

÷ 24 =

11,574.01 (days)

÷ 365.25 =

31.7 (years)

So, one trillion seconds is 31.7 years.

BUT! How long does it take to say a number? Well, the numbers one to ten – not very long at all. Eleven to ninety-nine – slightly longer and so on until, you get to numbers in the hundreds of millions. For example:

- 678,427,239 would be said as –
- Six-hundred-and-seventy-eight-million-four-hundred-and-twenty-seven-thousand-two-hundred-and-thirty-nine.
... Which takes a bit longer to say than ‘six’.

Step Three – Work out how long it takes to say a number.

Most (90%) of the numbers up to a trillion are in the hundreds of millions. So it makes sense to work out how long it takes to say these. I timed myself saying the number we just used a few times.

678,427,239

It took me an average of 5.6 seconds. But, I’m guessing I’d probably get quicker, and a few of the numbers would be slightly shorter to say; so, for my calculations, I’m going to use an average of five seconds per number.

Result!

If one trillion seconds is 31.7 years, then we simply multiply that by five (seconds per number).

It would take 158.5 years to actually count to a trillion...

... if you didn’t sleep (which you do) or eat (which you do).

Or 475.5 years if you counted for only eight hours a day – which is far more achievable!