

Poetry Epistle, on Leonardo fibonacci

A poetry activity by Johnny Ball

We're delighted to share a collection of specially written poems by **Johnny Ball**, beloved television presenter, mathematician and passionate champion of making maths fun and accessible for children. Through rhyme, rhythm and imagination, Johnny brings the fascinating Fibonacci sequence to life, helping pupils discover how numbers appear in surprising places throughout the natural world.

Whether you're introducing the **Fibonacci sequence** for the first time or looking for an inspiring classroom read-aloud, these poems are a wonderful way to spark curiosity, discussion and a love of numbers as part of **Number Day**.

Enjoy reading, exploring and discovering the beauty of numbers with Johnny Ball!



"GOOD LUCK"
JOHNNY BALL

Fibonacci, in his Book of the Abacus, introduced what we now call - The Fibonacci Series:

1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233, 377, 610, 987 Or -

The series starts by writing **1**, and then repeating the number **1**.

Now add them both and you get **2**, and to repeat that idea is what you do,

Always adding the previous two.

So **1** plus **2** is **3**, you see. Then **2** plus **3** is **5**. Agree?

And so continue if you please, building the Fibonacci series.

So the series goes **1, 1, 2, 3** - then **5**, then **8** and then **13**,

21, 34, 55, 89 - with the series growing all the time,

Then **144**, then **233**, now I wonder what the next will be,

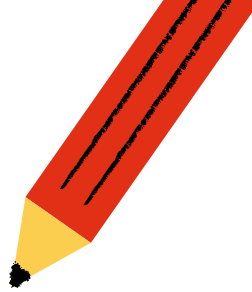
It turns out to be **377**, then **610** then **987**,

That covers the series, it would seem, featuring the very first **16**

Numbers since we began with **1**, but of course the series carries on,

and on and on, as you will find, with the numbers growing all the time.





A fibonacci trick:

Here's a trick that's really fun. You simply start by writing **1**.
 Now repeat that as you go along, by putting down another **1**.
 That gives two **Ones** and now if you, add them both you arrive at **Two**.
 Now add the last pair - **1** plus **2**, and you get **3**, well at least I do.
 Now add the last two? Snakes alive! **2** plus **3**, well that makes **Five**
 Then **3** plus **5**, well that makes **8** - and so far you are doing great
 In forming without any queries? The famous Fibonacci Series.

Next **5** plus **8**? That makes **13**, now your building a head of steam
 Then **8** plus **13**? Come along! Those two add to **21**
 But don't stop there, come on, there's more. Those last two add to 34,
 Then **21** plus **34**, makes **55**, not less or more.
 Now stop. With ten numbers in your list - Can you say what the total is? ____
 Well I can say with certainty, the total is **One Hundred and Forty Three**

1

1

2

3

5

8

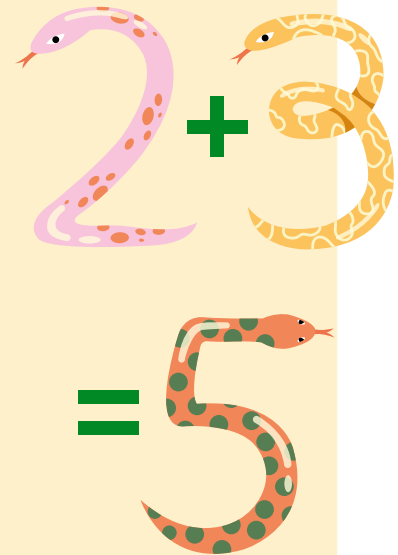
13

21

34

55

143



How did I know so speedily, what the total sum would be?
 With ten Fibonacci numbers in the row, to find the total, here we go -
 You find the number at position **7** and multiply that number by **11**
 The seventh number, that's **13**, which times **11** makes **One Forty Three**.

But here this! - Wonder upon Wonders - you can start the trick with Any Numbers.
 So take two numbers - Big or small - which first? It doesn't matter at all.
 Add both to get the third and then, add the last two until you have a list of ten.
 And sure as there's an H in Heaven, the total is the 7th one times 11.

Fibonacci wrote about the basic series in his book, *Libre Abacci*, The Book of the Abacus, published in 1202. It was the Frenchman Eduard Lucas (1842/91), who named it, the Fibonacci Series. Sequences starting with numbers other than two 1's and adding in the Fibonacci way, are called Lucas Numbers after him.

As an Introduction to Algebra, this is a super trick to try, as it explains clearly why it works. . By starting with "x" and "y", then x + y, then x + 2y, etc - the 7th number is 5x + 8y which when multiplied by 11 gives the grand total of the sequence of ten - 55x + 88y.

Converting miles into kilometres using the fibonacci series

When you travel, as is your want, abroad or “sur le continent”

One thing which may cause frowns, not smiles, is converting Kilometres into Miles.

But you can do it at your ease, by recalling the Fibonacci Series.

For the answer is always quickly found, by going one up or else one down.

Miles into Kilometres is always more, for Kilometres', much shorter are,

While Kilometres into Miles is less, as Miles are longer, aren't they? Yes!

And **5** Miles you can always state, in Kilometres is roughly **8**.

“So what's **21** Miles?” you may implore? Well in Kilometres that is **34**.

While **55** Miles you may define in Kilometres as **89**.

Now converting Kilometres into Miles, is quickly done and may cause smiles,

Just use the system in reverse, Kilometres are biggest, so they come first.

So if in Kilometres its **144**, then it's **89** in Miles, I'm sure,

Convert **34** K and when you're done, the answer in Miles is **21**.



Miles:	1	1	2	3	5	8	13	21	34	55	89	144
Kilometres:	1	2	3	5	8	13	21	34	55	89	144	233

