***SRI SATHYA SAI COLLEGE FOR WOMEN, BHOPAL***

***DEPARTMENT OF MATHEMATICS***

***ANANT 2016***

 

**The integration of zero and infinity,
how is it even possible?
Infinity is born out of zero,
and one day it will again become zero.
Either there can be zero or infinity,
how can they coexist in a single moment?
But this becomes possible when we meet,
In that moment, you become my infinity
and I become zero.**

**~Kenisha**

******Fractals :

 [A fractal is a way of seeing infinity.](http://www.azquotes.com/quote/1068545?ref=fractals)

-[**Benoit Mandelbrot**](http://www.azquotes.com/author/9367-Benoit_Mandelbrot)

In very simple terms, fractals are geometrical figures that are generated by starting with a very simple pattern that grows through the application of rules. In many cases, the rules to make the figure grow from one stage to the next involve taking the original figure and modifying it or adding to it. This process can be repeated recursively (the same way over and over again) an infinite number of times. The fractals' growth mechanism can be visualized very easily with a simple example. Start with a + sign and grow it by adding a half size + in each of the four line ends. Repeat the exact same process recursively as many times as desired. We'll call this the Plusses fractal:



‘[Fractal geometry is not just a chapter of mathematics, but one that helps Everyman to see the same world differently.](http://www.azquotes.com/quote/772313?ref=fractals)’

-[**Benoit Mandelbrot**](http://www.azquotes.com/author/9367-Benoit_Mandelbrot)

More interesting patterns of fractals :

  

  

'Obvious' is the most dangerous word in mathematics. -E. T. Bell

**The Mathematical Bridge**

* There exists a Mathematical Bridge. The Mathematical Bridge in Cambridge spans the river Cam, and belongs to the Queens College, one of the many [colleges of Cambridge](http://cambridgetravelguide.bestcambridge.org/cambridge-colleges/) University. This popular and simple wooden bridge is centuries old and has its own story. Most locals would refer to it as the Mathematical Bridge although its official name is the prosaic Wooden Bridge. And the interesting thing is that this bridge can be found in Oxford too.

 

There’s a charming myth that the Mathematical Bridge was designed by Sir Isaac Newton and built without nails. Indeed, the original one used iron pins or coach-screws at the joints, driven in from the external side (and thus not visible to those crossing the bridge.) .Then, after Newton’s death, the students / fellows of Cambridge University, who were curious to learn about the exquisite structure of the clever wooden bridge, disassembled the Mathematical Bridge, but failed to re-assemble it properly. As they could not put together the intelligent bridge again, they had to use iron pins, nuts and bolts to make the bridge functioning again.



 

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|  ***PUZZLES***ANSWERS : * The letter ‘m’ ,
* Choices ,
* 7 is 5. Because "seven" has 5 letters
* Seven ( take away the ‘s’ and it becomes ‘even’).
1. *What occurs once in every minute,  twice in every moment, but never in a thousand years?*
2. *When you have three, you have three. When you have two, you have two. But when you have one, you have none.*

 *What is that ?* 1. 1 is 3.3 is 5. 5 is 4.4 is 4.What is 7?
2. *I am an odd number. Take away one letter and I become even. What number am I?*

Do you know?* Mathematician Paul Erdos could calculate in his head, given a person’s age, how many seconds they had lived, when he was just 4 years old.
* If you have a pizza of radius Z and thickness A, its volume is = Pi\*Z\*Z\*A
* 2,520 is the smallest number that can be exactly divided by all the numbers 1 to 10.
* There are 177,147 ways to tie a tie, according to mathematicians.
* The opposite sides of a dice always add up to seven

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