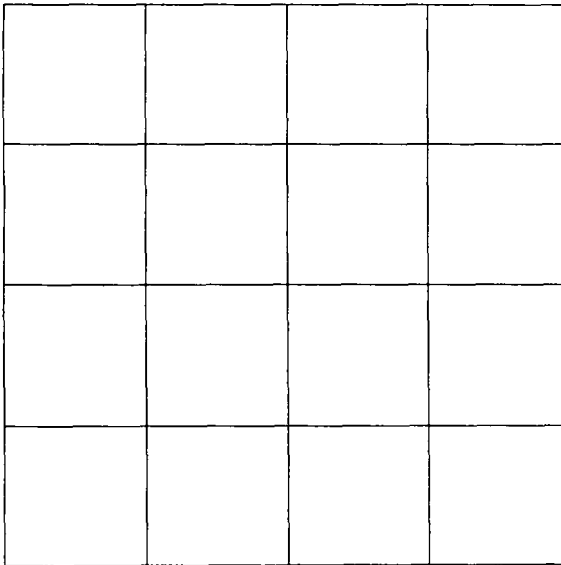# Fun in Mathematics

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Student, 3rd Year
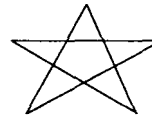*Electronics & Telecommunication Engineering*

1   Can you say how many rectangle are there in the following figure ?

2   Can you make 32 using two 2s and only one mathematical operation?

3   Suppose I am giving you nine identical coins one of which is impure. The impure coin may be lighter or heavier than the rest. How will you detect the impure coin using only three weighing?

4   Can you tell how many pure imaginary number are there in between i & -i?

5   What is the smallest prime integer?

6   Answer quickly, how many number of surface plane are there in a glass?

7   Suppose you are given a book. Let one page of the book is torn. The Summation of all the page numbers of the rest pages is 1024. Find out the number of the page torn and also find out the total number of pages contained in the book.

8   Which comes two times in a week but one time in a year?

9   How many 10 digit binary numbers can be formed?

10   Can you tell what is the value of $\sqrt{-2}. \sqrt{-3}. \sqrt{5}$?

11   Show that the number 49, 4489, 444889 obtained by inserting 48 into the middle of the preceding number are square of integers.

12   Can you say what is the value of $(0.2)\log_{\sqrt{5}}\frac{1}{2}$

13   Show that the product of any r consecutive number is always divisible by r !

14   Find the total number of triangles and tetragons in the following figure.

15   A Bus has four (4) wheels. Each wheel bursts after travelling 50 kms. You have two extra wheels. Find the maximum distance covered by the bus.

Ans

1. 100	5. 2	9. 2^{10}	13. Do yourself
2. $\sqrt[2]{2}$	6. Four	10. $-\sqrt{30}$	14. 10, 10
3. divide into three group	7. 5, 45	11. Do yourself	15. 75 km
4. infinite	8. e	12. 4	