

## Salutation to your solution!

- Sudhakar Attili.

1. There are two cars approaching each other. If they are 1050 meters apart and travelling at a velocity of 54 kmph (kilometers/hour) and 72 kmph respectively, how long will it take for them to meet? [Hint: 1kmph = (5/18)meters/sec]
2. Can you find a square having its area equal to its perimeter? Is it possible to find a rectangle having its area equal to its perimeter?
3. Find a number such that the sum of it and its reciprocal is equal to a whole number?
4. A person climbs a mountain walking 1300meters (slant surface). After reaching the top he realized the base of the mountain looks like a circle. The altitude of the mountain from base is 500meters. If a path is laid around the mountain base, what is the length of the path?
5. There are 5 cylindrical tins with lid such a way that one fits exactly into another. The diameter of the outer tin and inner tin being 8inches and 4 inches respectively, the heights of outer and inner tins being 9inches and 5 inches respectively and the thickness of the tin being half an inch, What is the volume of the middle tin?
6. If  $(27)^{n/3} = 9^{5/2}$ , what is the value of n?
7. A cylindrical solid wood piece having diameter 14mm and height 5cm is cut on sides to make it a hexagonal prism of diameter 14mm. What is the volume of the cut material? [Assume  $\pi$  is 22/7]
8. If  $a^b = c$ ;  $b^c = d$ ;  $c^d = a$ , then what is the value of  $bd$ ?

*You can send your answers either by post or by e-mail to the below address on or before **March 15<sup>th</sup>**.*

### **Mailing Address:**

Editor, Sanghamitra,  
12176 Vivacite Walk, Apt# B  
Saint Louis, MO 63146.

**e-mail : [susri@sanghamitra.org](mailto:susri@sanghamitra.org)**

*Can you figure out?*

*How do you read 'K T R S T'?*

*See the answer with a magnifying glass here →*