## Salutation to your solution!

- Sudhakar Attili.

- 1. A wholesale dealer buys hundred 20 pound coffee bags from a farmer at a rate of \$5/lb. He sells those bags to retailers for \$6.25/lb when they buy minimum Fifty 20 pound bags; \$6.35/lb when they buy a minimum Thirty 20 pound bags; \$6.40/lb when they buy a minimum of Twenty 20 pound bags. Three retail shop owners bought 50, 30 & 20 bags (each weighing 20lb) respectively. They later put a profit margin of 5%, 8% & 10% respectively? They all gave a promotion saying "Buy 5 pounds and get 1 pound FREE". If we buy 8lbs of coffee, which retailer is cheaper?
- 2. Find the value of {1 + 2 + 3 + 4 + ... up to 99999}. Please explain the method you followed.
- 3. Find the next number in the patterns below.

(a) 2, 6, 12, 20, 30, 42, 56, <u>?</u> (b) 0, 4, 18, 48, 100, 180, <u>?</u>

- 4. The advertising company built a big capsule model. It is having a cylinder in the middle and two hemispheres on top and bottom. The diameter of cylinder is equal to the diameter of each of the hemispheres. Dimensions are shown in the picture. Find the area of the metal plate needed if the capsule is hollow? **PS:** Assume negligible thickness compared to its size.
- 5. There is a circle with radius 7 inches. How many circles of same radius can we draw around it in such a way that each outer circle should touch the initial circle. Two adjacent circles should touch, but should not overlap each other.

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

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> Can you figure out? A car number plate shows **BUG FNDR**. What does that mean? See the answer with a magnifying glass here  $\rightarrow$  sources

