**Awareness in General:**

**What general numbers should I remember?**

- The following numbers can be memorized for your country (here India)
- Only ballpark figures are mentioned
- **Population Distribution by Age:**
    - India has a young population.
    - It has more than 50% of its population below the age of 25.
    - 0-15: 30 %
    - 15-25 : 20 %
    - 25-50 : 30 %
    - 50+ : 20%
- **Population Distribution by Income:**
    - Upper Middle Class (>32,000 pm): 10%
    - Middle Class (16,000-32,000 pm): 30%
    - Lower Middle Class (8000-16,000 pm): 40%
    - Below poverty line (<8000pm): 20%
    - Mumbai population = 20 million
    - Kolkata, Delhi population ( Take Approx same for all metros ) =15 million
- **Math:**
    - Numbers galore Number of Zeros :
        - 1 lakh = 10^5,
        - 1 million = 10^6, = 10 lakhs
        - 1 crore = 10^7,
        - 1 billion = 10^9 = 100 crores
        - 1 trillion = 10^12 = 1000 billions
- **Percentages:**
    - Situations arise when you have to multiply percentages.
    - So it is good to have this well practised.
    - Example:
        - In a population 80% males and 60% females wear watches.
        - Then, assuming a 1:1 sex ratio
        - we get 80%*50% + 60%*50% = 40% + 30% = 70% of the population wears watches.
- Example : “What is the market of roses in India?”.
    - Here, you must think that roses are not just sold as a flower but also as a raw material for the production of rose water.
    - Hence, it is important to include this hidden application in your guesstimate.

**Example 1.Number of Maggi sold in a day in India**

- Population of India
    - Here we are considering people who consume Maggi are from India, urban population and above poverty line

        - Population = 1.2 billion = 120 Crore
        - Urban population: 70% of total population =120 * 0.7 =  84 Crore
        - Above poverty line population: 30% of total Urban population
        - Therefore, net population to consider: = 84* 0.3 = 25 Crore
- Considering an ordinary, urban(city) household with 4 individuals
    - Total purchased Maggi = 10
    - Number of Maggi needed per month = 10
    - Therefore, per head consumption = (10/4) = 2.5 Maggi per person
- Population distribution: (Age-wise)
    - 0 – 10
        - consume less than 2.5 packets per month, say 2 packets
        - 20% of the population
        - = 25 cr (population to consider) * 0.20 (population) * 2 (Maggi packets)
        - = 50 * 0.20 = 10 lacs Maggi per month
    - 10 – 50
        - consume 3 packets per month
        - 60% of the population
        - = 25 cr (population to consider) * 0.60 (population) * 3 (Maggi packets)
        - = 75 * 0.65 = 49 lacs Maggi per month
    - 50+
        - consume less than 2.5 packets per month, 2 packets
        - 20% of the population
        - = 25 cr (population to consider) * 0.20 (population) * 2(Maggi packets)
        - = 50 * 0.20 = 10 lacs Maggi per month
- Total approximate consumption
    - 10 + 49 + 10 = 69 Lacs packets/month
- Assuming a month of 30 days, per day consumption
    - 69 / 30 lacs packets per day
    - 2.3 lacs packets per day.

**Example 2. How many t-shirts e-commerce companies sell in India per day?**

- Total population of India : 1 billion (approx) = 100 crores
- Reach to internet : 40% = 40 Crore
- Reach of ecommerce companies to deliver products :
    - 75% = 28 Crore
- Let's assume 50% are male and 50% are female
- Let's solve for male population first:
    - 0–15 yr
        - 30% population
        - individual own average 4 t shirts
        - 14 * 0.3 * 4 = 56 * 0.3 = 18.6 Lacs
    - 15–40 yr

        - 40% population
        - individual own average  8 t shirts
        - 14 * 0.4 * 8 = 112 * 0.4 = 44.8 Lacs
    - 40+ yr
        - 30% population
        - individual own average  4 t shirts
        - 14 * 0.3 * 4 = 56 * 0.3 = 18.6 Lacs
    - Total t shirts own by men
        - 18.6 + 44.8 + 18.6 = 82 Lacs
- Let's solve for female population now:
    - 0–15 yr
        - 30% population
        - individual own average 4 t shirts
        - 14 * 0.3 * 4 = 56 * 0.3 = 18.6 Lacs
    - 15–40 yr
        - 40% population
        - individual own average  8 t shirts
        - 14 * 0.4 * 8 = 112 * 0.4 = 44.8 Lacs
    - 40+ yr
        - 30% population
        - individual own average  2 t shirts
        - 14 * 0.2 * 2 = 28 * 0.2 = 5.6 Lacs
    - Total t shirts own by women
        - 18.6 + 44.8 + 5.6 = 69 Lacs
- Total t shirts own by men + women
    - = 82 +69 = 151 Lacs ~ 1.5 crore
- Average life of a t shirt = 2 year
- Demand per year = 1.5 / 2 = 75 lacs
- Online portals provide coupons and offers but because of trust factor and fitting issues, people in india still prefer to buy offline,
    - So i am assuming 30% of people buy t shirt from ecommerce portal and 70% are buying from market.
    - Total number of t-shirts sold through ecommerce platform per year in India
    - = 0.3* 75 = 22.5 Lacs per year
- Number of t-shirts sold in India per day(From ecommerce portal)
    - = 23 L / 365 ~ 6250 per day