Math's Formulae

PERCENTAGE

- When a value is determined in comparison with hundred, it is called percentage.
- Example: if profit on Rs 100 is 12, it will be called 12% profit.
- If a person faces the loss of Rs 30 on Rs 200, it means he faces the loss of Rs 15 on Rs 100. So, it is 15% loss.
- When percentage is converted into fraction, it is divided by 100.

PROFIT –LOSS

- When a person runs a business, he/she either face loss or gets profit.

Cost price (C.P.)

- Cost price is the price at which a person purchases a product.

Selling price (S.P)

- Selling price is the price at which a person sells a product.

Market price (M.P.)

- It is the price that is marked on an article or commodity. It is also known as list price or tag price. If there is no discount on the marked price, then selling price is equal to the marked price.
- If there is some discount on the marked price, then S.P. =M.P. – discount

Profit

- When a person sells a product at higher rate than he/she purchased at, the difference between both amounts is called profit.

Loss

- When a person sells a product at lower rate than he/she purchased at, the difference between both amounts is called loss.

Formulae

- Profit = S.P. – C.P.
- Loss = C.P. –S.P.
- Discount = M.P. –S.P.

SIMPLE INTEREST

- When an amount of money is lent or borrowed and fixed interest is added to the principal after every interval, the total amount that is added is called simple interest.
- Principal = P
- Rate of interest = r%
- Time duration = t

- Interest, I =
- Amount = P + I
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COMPOUND INTEREST

- It is the interest calculated on initial principal and also on the interest accumulated of previous periods of deposit or loan.
- Principal = P
- Rate of = r%
- Number of time interval = n
- Interest, I = A- P

- If compounding is done k times in n years, then

TIME, DISTANCE AND SPEED

- The speed of any object is the distance covered by it per unit time.
- Distance = Time × Speed
- Speed is measured in kilometer per hour (km/h) or meter per second (m/s).
- Time is measured in hours or seconds.
- Distance is measured in kilometer or meters.
- To convert a speed in km/h into m/s, multiply the speed with 5/18.
- To convert a speed in m/s into km/h, multiply the speed with

  18/5.

- If a body travels a distance at a speed of x km/h and then returns to its original position at a speed of y km/h, then its average speed for the entire journey is km/h.