** Simple Interest**Top of Form

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When we borrow money from any source (bank, agency, moneylender), we have to pay back the money after a certain period along with extra money for availing the facility to use the money borrowed.

● The money borrowed is called the principal (P).

● Extra money paid back is called the simple interest (S.I).

● Interest is expressed as rate par cent per annum (p.a.) i.e., 12% per month means, the interest on $100 for 1 year is $12.

● The total money paid back after the given time is called the amount.

● Time for which money is borrowed is called the time period.

 When number of day is converted into year, we always divide the number of days by 365, whether it is a leap year or an ordinary year.

Formula for calculating simple interest is **S.I = (P × R × T)/100**

**P** = Principal ,**R** = rate% per annum
**T** = time
**I** = simple interest
**A** = amount

Formula for calculating amount is **A = P + I**

**1.** Find simple interest on Rs.2000 at 5% per annum for 3 years. Also, find the amount.
Principal = Rs.2000
Rate = 5% p.a.
T = 3 years
S.I = (P × R × T)/100

      = (2000 × 5 × 3)/100
   = Rs300

Amount = P + I

             = Rs ( 2000 + 300 )

             = Rs 2300

**2.** Calculate the simple interest on Rs.6400 at 10% p.a. for 9 months.

**Solution:**

P = Rs. 6400

R = 10% p.a.

T = 9 months or 9/12 years

[12 months = 1 year

1 months = 1/12 years

9 months = (1 × 9)/12 years]

Therefore, S.I. = (P × R × T)/100

                        = (6400 × 10 × 9)/(100 × 12)

                        = Rs.480

**3.** Mike took a loan of Rs.20000 from a bank on 4 February 2009 at the rate of 8% p.a. and paid back the same on 6th July 2009. Find the total amount paid by Mike.

P = Rs.20000

R = 8 % p.a.

T = 152/365

**Solution:**

Time = February + March +April + May + Jun + July

         = 24 days + 31 days + 30 days + 31 days + 30 days + 6 days

         = 152 days

Therefore, S.I. = (P × R × T)/100

                         = (20000 × 8 × 152)/(100 × 365)

                         = Rs. (40 × 8 × 152)/73

                         = Rs. 666.30

Therefore, the amount paid = Rs. (20,000 + 666.30) = Rs. 20666.30