

HeMantra EduTech

Math : Simple Interest



- I. Principal: The money borrowed or lent out for a certain period is called the *principal* or the *sum*.
- II. Interest: Extra money paid for using other's money is called interest.
- **III. Simple Interest (S.I.):** If the interest on a sum borrowed for a certain period is reckoned uniformly, then it is called *simple interest*.

Let Principal = P, Rate = R% per annum (p.a.) and Time = T years.

Then, (i) S.I. =
$$\left(\frac{P \times R \times T}{100}\right)$$
.

(ii)
$$P = \left(\frac{100 \times S.I.}{R \times T}\right)$$
; $R = \left(\frac{100 \times S.I.}{P \times T}\right)$ and $T = \left(\frac{100 \times S.I.}{P \times R}\right)$

Q.1

Find the simple interest on Rs. 5,000 at a rate of 8 % annum for 3 years.

Q.2)

Find the simple interest on $\stackrel{?}{=}$ 68000 at $16\frac{2}{3}\%$ per annum for 9 months.



Q.3)

Find the simple interest on $\stackrel{?}{\stackrel{?}{\sim}} 3000$ at $6\frac{1}{4}\%$ per annum for the period from 4th Feb., 2009 to 18th April, 2009.



A sum at simple interest at $13\frac{1}{2}\%$ per annum amounts to ₹ 2502.50 after 4 years. Find the sum.

Q.5)

The simple interest accrued on an amount of $\stackrel{?}{\stackrel{?}{?}}$ 2500 at the end of 6 years is $\stackrel{?}{\stackrel{?}{?}}$ 1875. What would be the simple interest accrued on an amount of $\stackrel{?}{\stackrel{?}{?}}$ 6875 at the same rate and for the same period? (Bank P.O., 2009)

Q.6)

A sum of $\stackrel{7}{\sim}$ 800 amounts to $\stackrel{7}{\sim}$ 920 in 3 years at simple interest. If the interest rate is increased by 3%, it would amount to how much ?



Adam borrowed some money at the rate of 6% p.a. for the first two years, at the rate of 9% p.a. for the next three years, and at the rate of 14% p.a. for the period beyond five years. If he pays a total interest of ₹ 11400 at the end of nine years, how much money did he borrow?



A certain sum of money amounts to $\stackrel{?}{\overline{}}$ 1008 in 2 years and to $\stackrel{?}{\overline{}}$ 1164 in $3\frac{1}{2}$ years. Find the sum and the rate of interest.



Q.9)

If a sum triples in 20 years, find the rate of interest.

Q. 10)

In how many years will a sum double at a 10 % annual simple interest?



Q.11) Find the simple interest on Rupees 5000 at 8 % annual interest for 3 years.



A sum doubles in 5 years. How long will it take to become 6 times?

Q.13)

A sum triples in a fixed time at an 8 % annual simple interest. What will be the new interest rate if the sum becomes 5 times in the same time ?



The difference between simple interest for 3 years and 5 years at 5 % annual interest is Rupees

Q. 14)

800. What will be the principal?



Q. 15)

If the interest rate is 15 % instead of 10 %, then the difference in simple interest on a sum of money in 2 years is Rupees 250. What is the amount ?

Q.16)

In how much time will the simple interest of a sum of money at 10 % annual interest become 2 times the amount ?



The simple interest on a sum of money becomes $\mbox{\ensuremath{\$}}$ th of that money in 4 years, then find the rate of

Q.17)

interest?



Q. 18)

The simple interest on a sum of money is 1/9 of the principal. If the number of years and the rate of interest are the same, then for how long in the money given ?



A sum of money becomes 41/40 times in $\frac{1}{4}$ year at some rate of simple interest, then what is the rate of annual interest?



Q.20)

The rate of interest on a sum of money is 4% per annum for the first 2 years, 6 % annually for the next 4 years and 8 % per annum for the next 3 years. If the total interest after 9 years is Rupees 1120, then what is the principal ?



Q. 21)

At a certain rate of simple interest, the simple interest on a sum of money becomes 5 times the amount in 10 years. What will be the time taken by the money to become 10 times?

Q.22)

The simple interest on a sum of money for 2 years at 10% annual rate is Rupees 300 and the simple interest on a sum of money for 3 years at 15% annual rate is Rupees 675. Find the principal amount?



Q.23)

A person borrows some money for 3 years at 10 % annual interest rate and returns Rupees 7800 at the end of the time, then find the principal amount ?



If a sum of money become Rupees 6604 in 3 years and Rupees 7540 in 5 years at simple interest,

Q.24)

then find the interest for one year?



Q. 25)

If a sum of money becomes Rs. 6900 in 3 years and Rs. 7500 in 5 years, find the principal?









