Compound Interest

1. What will be the C.I. on Rs. 5000/- in 3 years the rate of compound interest being 10% per annum.

Ans 1655

At what rate per cent of compound interest, a sum of Rs. 2000 will amount to Rs. 2662 in 3 years?

Ans 10 %

A sum of money placed at compound interest double itself in 4 years. In how many years will it amount to eight times of itself?

Ans 12

Find the least no. of complete years in which a sum of money at 25% C.I. will be more than triple. Ans 5

If the C.I. on a certain sum for 2years at 3% be Rs. 101.50. What would be the S.I.? ans 100

$P (1 + 3/100)^2 - p = 101.50$

The C.I. on a certain sum for 2years is Rs 420 and simple interest is Rs 400. Find the rate of interest and the sum.

The difference between the C.I. and S.I. on a certain sum of money at 10% per annum for 2 years is Rs 17.50. Find the sum. Three Methods to Solve this

Difference = p X $(R/100)^2$

17.50 = p X 1/100

P= Rs 1750

SI = 1750 X 10 X 2 /100

= 350

When SI of two Yrs is given

Difference = ½ r of Si

When SI of three Yrs is given

Difference = 1/3 r (3 + r) of Si

The difference between C.I. and S.I. on a certain sum in 3 years at 10% per annum is Rs. 55.80. Find the sum.

METHOD 1

Diff = $P\left((r/100)^3 + 3\,(r/100)^2 \right)$

$55.80 = p\,(1/1000 + 3/100)$

$55.80 \times 1000 = p\,(31)$

Ans 1800

METHOD 2

100	1st	2nd	3rd	Total
SI	10	10	10	30
CI	10	11	12.1	33.1

Diff 3.1 p =100

1 p = 100/3,1

55.80 p = 100/3.1 * 55.80 Ans 1800

Amount of money grow up to Rs 7260 in 2 years and up to 7986 in 3 years on compound interest. Find the rate% Ans 10