

→ Effect of Compound Interest deep depends on the Payment amount and when they are made.

→ Example: — An amount of Rs 10,000 is borrowed by a borrower or a lender has given to a borrower, Time n is 4 yrs and annual interest rate is 20%. Find the Compound Interest.

$$C.I = P \left(1 + \frac{r}{100} \right)^n$$

$$C.I = 10,000 \left(1 + \frac{20}{100} \right)^4$$

$$= 10000 \left(1 + \frac{1}{5} \right)^4$$

$$= C.I = 10000 \times \left(\frac{6}{5} \right)^4$$

Year. Calculation of C.I Interest when interest is Paid annually

	Amount owed of beginning of year.	Interest to be paid at year	Amount owed at end of year	Amount Paid by borrower at end of year
1	10000	2000	12000	2000
2	10000	2000	12000	2000
3	10000	2000	12000	2000
4	10000	2000	12000	12000

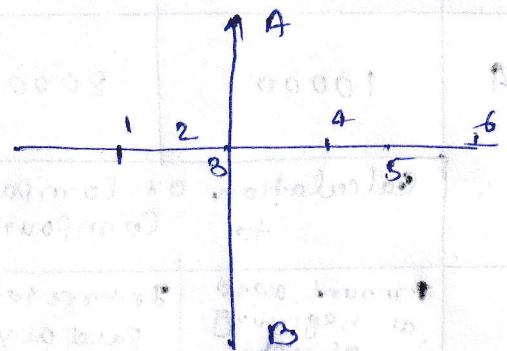
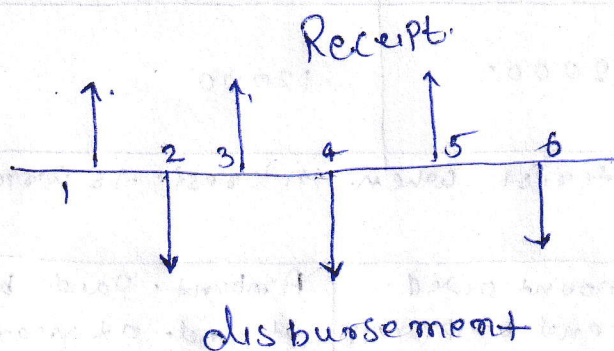
Year. Calculation of Compound Interest when interest is permitted to Compound.

	Amount owed at beginning of year	Interest to be Paid at year	Amount owed at end of one year	Amount Paid by borrower at end of year.
1	10000	2000	12000	—
2	12000	2400	14400	—
3	14400	2880	17280	—
4	17280	3456	20736	20736

Cash flow over time! —

- It is actual flow or receipts and outflow that is disbursement at different point in time that occur over the life of an investment.
- It depends upon the point of view taken of two parties involved.
- Net Cash flow at any time t , at any time t that is t is arithmetic sum of receipts and disbursement that occurs at same point in time.
 - * $\Sigma t f_t > 0$: net cash receipt.
 - * $-\Sigma t f_t < 0$: net cash disbursement.
- When the money is coming that is inflow of money that is known as receipts.
- And similarly, at whenever time you are giving the amount to someone that is known as a disbursement.
- And this is known as cash flow so cash is basically flowing either it is coming in or it is going out.

~~Cash flow over time.~~



If $A - B > 0$; Net receipt

If $A - B < 0$ Net disbursement