



MATHS

BOOKS - CALCUTTA BOOK HOUSE MATHS (BENGALI ENGLISH)

COMPOUND INTEREST

Example Type

1. The sum of the principal and compound interest for a fixed period of time is termed as

A. Compound interest

B. Amount

C. Simple interest

D. Total interest

Answer:

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2. If principal is p and annual rate of compound interest is $r\%$ then the amount for 3 years will be

A. Rs. $r\left(1 + \frac{p}{100}\right)^3$

B. Rs. $3\left(1 + \frac{r}{100}\right)^p$

C. Rs. $P\left(1 + \frac{r}{100}\right)^3$

D. Rs. $P\left(1 + \frac{r}{100}\right)^2$

Answer: C



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3. The amount on Rs. 1000 for 2 years at the rate of 5% compound interest per annum is

A. Rs. 1102.50

B. Rs. 1120.50

C. Rs. 1021.50

D. Rs. 1202.50

Answer: A



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4. At 5% compound interest per annum the compound interest on Rs. 10000 for 3 years is

A. Rs. 1567.25

B. Rs. 1567.52

C. Rs. 1657.25

D. Rs. 1576.25

Answer: D



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5. If the rate of compound interest for the first year is 4% and 2nd year is 5% where compound interest on Rs. 25000 for 2 years is

A. Rs. 3200

B. Rs. 2300

C. Rs. 2302

D. Rs. 2310

Answer: B



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6. A. Write true or false:

a. If Principal = Rs. p , rate of compound interest per annum

= $r\%$ and time = n years, then the amount after 2 years

is Rs. $p\left(1 + \frac{r}{100}\right)^2$

b. If principal = Rs. p and rate of compound interest per

annum for first, 2nd and 3rd year be $r_1\%$, $r_2\%$ and $r_3\%$

respectively, then total amount for 3 years.

$$= Rs. p \left(1 + \frac{r_1}{100}\right)^3 + Rs. p \left(1 + \frac{r_2}{100}\right)^3 + Rs. p \left(1 + \frac{r_3}{100}\right)^3$$



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7. Fill in the blanks:

a. Principal and compound interest are _____ proportional.

b. Interest = Amount - _____.

If principal = $Rs. P$ rate of compound interest be $r\%$ per annum and time period be n years, then _____ = $\frac{prt}{100}$



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8. If principal = Rs. p and rate of compound interest per annum for first, 2nd and 3rd year are $r_1\%$, $r_2\%$ and $r_3\%$ respectively, then find total amount for first year.

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9. Calculate the amount on Rs. 20000 at the rate of 5% compound interest per annum for 2 years.

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10. If the rate of compound interest of principal Rs. p is $r\%$ per annum and the interest is compound quarterly, i.e. the number of phase of compound in a year is 4, then find the amount for n years.



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11. If the compound interest of principal Rs. p is $a\%$ per annum and the interest is compounded half-yearly, then find the amount in n years.



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12. Calculate the amount on Rs. 5000 at the rate of 8% compound interest per annum for 3 years.



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13. In how much time Rs. 64000 will amount Rs. 68921 at the rate of 10% compound interest per annum if interest is

compounded quarterly?



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14. Rina took a loan at the rate of 15% compound interest per annum. If she refunded Rs. 1290 after 2 years, then what sum of money did Rina take?



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15. In how much time rs. 6400 will amount Rs. 6561 at the rate of 5% compound interest when interest is compounded quaterly?



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16. At what rate of compound interest per annum Rs. 1000 will amount Rs. 13310 in 3 year?

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17. At what rate of compound interest per annum a sum of money Rs. 32000 will amount Rs. 39753.50 in $1\frac{1}{2}$ years. When interest is compound hal -yearly?

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18. At the rate of compound interest 5% per annum, find the amount of Rs. 80000 in $2\frac{1}{2}$ years.

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19. Gautambabu has taken a loan of Rs. 2000 for 2 years at the rate of compound interest of 6% per annum. Find the compound interest he has to pay after 2 years.

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20. Chandadebi took a loan of some money for 2 years at the rate of compound interest of 8%. If the compound interest paid by her be Rs. 2496 then find the quantity of loan Chandadebi had lended.

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21. Find the principal which becomes Rs. 2648 after getting 10% compound interest per annum for 3 years.



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22. Rahamanchacha deposited some money in a Co-operative Bank at the rate of 9% compound interest and he received amount Rs. 29702.50 after 2 years. Find how much money Rahamanchacha had deposited in Co-operative Bank.



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23. Determine the difference between compound interest and simple interest on Rs. 10000 for 3 years at 5% per annum.



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24. Find the sum of money if the difference between compound interest and simple interest for 2 years at the rate of 9% interest per annum is Rs. 129.60

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25. Find the sum of money if the difference between compound interest and simple interest for 3 years becomes Rs. 930 at the rate of 10% per annum.

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26. If the rate of compound interest for the first and second year are 5% and 6% respectively, then find the compound interest on Rs. 5000 for 2 years.



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27. If the rate of compound interest for the first year be 3%, for the second year be 2% and for the third year be 1% then find the sum of the money, the amount of which of 3 years is Rs. 15916.59.



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28. If the simple interest of a certain sum of money for 1 year is Rs. 50 and compound interest for 2 years is Rs. 102, then find the sum of money and the rate of interest.



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29. If simple interest and compound interest of a certain sum of money for two years are Rs. 8400 and Rs. 8652 respectively, then find the sum of money and the rate of interest.

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30. Divide Rs. 6305 into three parts in such a way that at the rate of compound interest of 5% per annum the amount of 1st part in 2 years, the amounts of 2nd part in 3 years and the amounts of 3rd part in 4 years are all equal.

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31. Divide Rs. 3903 between A and B in such a way that at the rate of compound interest of 4% per annum, the amount

obtained by A after 7 years is equal to the amount obtained by B after 9 years.



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32. A sum of money becomes 2-times at the rate of compound interest in 15 years. In how many years, it will become 8 times at the same of compound interest?



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33. The simple interest of a sum of money at the rate of 4% per annum in 3 years is Rs. 303.60. Then find the compound interest of the same principal at the same rate of compound interest in the same period of time.



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34. Bijoy borrowed Rs. 64000 from a bank. If the rate of interest per annum be 2.5 paisa per Rs. 1, then how much compound interest should Bijoy have to pay to the bank after 3 years?

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35. Calculate the rate of simple interest per annum, so that the amount on RS 500 for 2 years becomes Rs 550.

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36. A person invested a sum of money in a bank under this condition that the bank will offer him compound interest. If the compound interest for two consecutive years be Rs. 225 and Rs. 238.50 respectively, then find the rate of compound interest per annum.

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37. The simple interest and compound interest of a certain sum of money for 2 years are Rs. 840 and Rs. 869.40 respectively. Find the sum of money and the rate of interest.

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38. Calculate at what rate of compound interest Rs. 5000 amount to Rs. 5832 in 2 years.

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39. Calculate the compound interest on Rs. 6000 for 1 year at the rate of 8% compound interest per annum compounded at the interval of 6 months.

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40. Calculate the compound interest on Rs. 6250 for 9 months at the rate of 10% compound interest per annum compounded at the interval of 3 months.

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41. Calculate at what rate of interest per annum will Rs. 60000 amount to rs. 69984 in 2 years.

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42. Calculate the principal which amounts Rs. 9826 after 18 months at the rate of compound interest 2.5% per annum when interest is compounded at the interval of 6 months.

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43. A sum of money was invested in a monetary fund for 2 years at the rate of compound interest of 20% per annum. If

interest had been compounded at the interval of 6 months , then the compound interest would be Rs. 482 more of the same principal at the same rate of interest. Find the sum of money invested.



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44. At the rate of compound interest of 8% per annum in how many years will the principles Rs. 40000 amount Rs. 46656?



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45. Calculate in how many years will Rs. 300000 amount to Rs. 399300 at the rate of 10% compound interest per annum.



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46. Calculate the compound interest and amount on Rs. 1600 for $1\frac{1}{2}$ years at the rate of 10% compound interest per annum compounded at the interval of 6 months.

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47. In the case of compound interest the rate of compound interest per annum for every years is

- A. equal
- B. unequal
- C. both equal or unequal
- D. none of the above

Answer:



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48. In the case of compound interest

- A. The principal remains the same in every year
- B. The principal changes every year
- C. Every year the principal may remain the same or may change
- D. Noen of the above

Answer:



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49. If the present population of a village be P and the rate of uniform increase in population in every year be $2r\%$ then the population of the village after years will be

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

B. $P\left(1 + \frac{r}{50}\right)^n$

C. $P\left(1 + \frac{r}{100}\right)^{2n}$

D. $P\left(1 - \frac{r}{100}\right)^n$

Answer:

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50. The present value of a machine be Rs. $2P$ and every year the value of it decreases by $2r\%$. Then the value of the

machine after $2n$ years is

A. Rs. $P\left(1 - \frac{r}{100}\right)^n$

B. Rs. $2P\left(1 - \frac{r}{50}\right)^n$

C. Rs. $P(1 - r/50)^{2n}$

D. Rs. $2P\left(1 - \frac{r}{50}\right)^{2n}$

Answer:



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51. If interest is compounded at the interval of 3 months, the amount of the principal Rs. A . at the rate of compound interest of $b\%$ per annum after c years is

A. Rs. $A\left(1 - \frac{b}{400}\right)^{4c}$

B. Rs. $a \left(1 + \frac{b}{100} \right)^{4c}$

C. Rs. $a \left(1 + \frac{b}{100} \right)^{c}$

D. Rs. $a \left(1 + \frac{b}{100} \right)^c$

Answer:



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52. State whether the following statement is true or false:

I. The compound interest of a certain sum of money for a certain period of time at the certain rate of compound interest per annum is less than the simple interest of the same sum of money for the same period of time and at the same rate of interest.

II. In the case of compound interest the quantity of principal

gradually increases.

III. In the case of compound interest, the rate of interest changes every year.

IV. In the case of compound interest, the same quantity of interest is obtained in every year.

V. In the case of compound interest the obtained interest is proportional to the period of time.



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53. Fill in the blanks:

i. If the increase of any object occurs at the certain rate with respect to certain period of time. Then it is called.....increase.

ii. If the decrease of any object occurs at a certain rate with respect to certain period of time, then it is called uniform.....

iii. Compound interest = – principal.

iv. If the rate of compound interest decreases, then the quantity of compound interest also.....
v. For the 1st year the simple and compound interest are the.....

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54. At a certain rate of compound interest if a sum of money becomes double in n years then find the period of time in which it will become 4-times.

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55. The value of a machine being decreased in y years at the rate of $r\%$ per year, becomes Rs. V . Find the value of the machine before n years.



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56. At the end of 2nd and 3rd year, the compound interest of a sum of money is Rs. 880 and Rs. 968 respectively. What will be the rate of interest per annum?



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57. What is the equivalent rate of compound interest per annum if the half yearly compound interest be 10%?



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58. The present population of a town is 16000. If the rate of increase of population be 5% per annum, then what will be

the population of the town after 2 years?



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59. The rate of increase of population of a state is 2% per annum. If the present population of a state be 80000000, then what will the population of the state after 3 years?



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60. The value of a machine of a factory decreases by 10% per year. If the present value of the machine be Rs. 100000, then what will be the value of it after 3 years?



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61. As a result of Sarba Siksha Abhiyan the students leaving the school before completion, are re-admitted, so the students in a year is increased by 5% in comparison to its previous year. If the number of such re-admitted students in a district be 3528 in the present year. Find the number of students re -admitted 2 years before in this manner.



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62. The present population of a town is 576000. If the rate of increase of population be $6\frac{2}{3}\%$ per annum, then what was the population of the town before 2 years?



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63. Through the publicity of road -safety programme, the street accidents in Purulia district are decreased by 10% in comparison to its previous year. If the number of street accidents in this year be 8748, then find the number of street accidents 3 years before in the district.

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64. The height of a tree increases by 20% per annum. If the present height of the tree be 28.8 metres, then what was the height of the tree before 2 years?

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65. Weight of Sovanbabu is 80 kg. In order to reduce his weight, he started regular morning walk. He decided to reduce his weight every year by 10%. Calculate the weight of Sovanbabu after 3 years.

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66. At the present the sum of the number of students in All M.S.K in a district is 3993. If the number of students increased in a year was 10% of its previous year, calculate the sum of the number of students 3 years before in all the M.S.K in the district.

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67. The present value of a machine of a factory is Rs. 180000. If the value of the machine decreases at the rate of 10% per annum, then what will be the value of the machine after 3 years?

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68. For the families having no electricity in their house, a Panchayat samity of village Bakultala accepted a plan to offer electric connections, 1200 families in these village have no electric connection in their houses. In comparison to its previous years, it is possible to arrange electricity every year for 75% of the families having no electricity. Find the number of families without electricity after 2 years.

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69. As a result of continuous publicity on harmful reactions in the use of cold drinks filled bottles, the number of users of cold drinks is decreased by 25% every year in comparison to its previous year, 3 years before number of users of cold drinks in a town was 80000. Find the number of users of cold drinks in the present year.



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70. As a result of publicity on smoking, the number of smoker is decreased by $6\frac{1}{4}\%$ every year in comparison to its previous year. If the number of smokers at present in a city is 33750 find the number of smokers in that city 3 years before.



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71. The population of a village is 20000. If the rate of birth be 4% per annum and the of death be 2% per annum, then find the population of the village after 2 years.

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72. The population of a town was 160000 before 3 years. If the rate of growth of population in these three years be 3%, 2.5% and 5% respectively, then find the population of the town at present.

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73. The present value of a car is Rs. 360000. If the value of the car decreases at the rate of 10% in the first year and in the next every year the rate of decrease is 20% per year. Then find the value of car after 3 years.

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74. This year the number of blood donors in a hospital is 24000. If the number of blood donors increases by 5% in every 6 months, then in how much time will the number of blood donors be 27783?

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75. The number of bicycles produced in the year 2012 and in the year 2015 are 80000 and 92610 respectively. Then find the rate of increase of production in percentage per annum.

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Mcq Type

1. If a principal be Rs. p and annual rate of compound interest is $r\%$ then the amount for 3 years will be

A. Rs. $\left(p - \frac{r}{100}\right)^3$

B. Rs. $\left(p + \frac{r}{100}\right)^3$

C. Rs. $\left(p + \frac{r}{200}\right)^2$

D. Rs. $\left(p + \frac{r}{100}\right)^2$

Answer: B



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2. Interest of principal Rs. p on n years at the rate of $r\%$ compound interest per annum when interests are calculate m times per year =

A. Rs. $p \left(1 + \frac{r}{100m} \right)^{mn}$

B. Rs. $P \left(1 + \frac{r}{100m} \right)^n$

C. Rs. $P \left(1 + \frac{r}{100} \right)^m$

D. Rs. $P \left(1 + \frac{rm}{100} \right)^{mn}$

Answer: A



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3. If the annual rate of compound interesting 1st year be $r_1\%$, in 2nd year be $r_2\%$ and in 3rd year be $r_3\%$ then the total amount of principal Rs. p in 3 years =

A. $Rs. P \left(1 - \frac{r_1}{100}\right) \left(1 - \frac{r_2}{100}\right) \left(1 - \frac{r_3}{100}\right)$

B. $Rs. P \left(1 + \frac{r_1}{100}\right)^n \left(1 + \frac{r_2}{100}\right)^n \left(1 + \frac{r_3}{100}\right)^n$

C. $Rs. P \left(1 + \frac{r_1}{100}\right) \left(1 + \frac{r_2}{100}\right) \left(1 + \frac{r_3}{100}\right)$

D. None of these

Answer: C



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4. A 5% compound interest per annum the compound interest on $R10000$ for 2 years is

A. Rs. 10125

B. Rs. 11205

C. Rs. 11250

D. Rs. 11025

Answer: D



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5. Compound interest on $R1000$ at the rate of 10% compound interest per annum in 1 year is

A. Rs. 10

B. Rs. 100

C. Rs. 50

D. Rs. 200

Answer: B



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6. If the compound interests in two consecutive years be Rs. 400 and Rs. 432 then the rate of interest is

A. 0.1

B. 0.08

C. 0.06

D. 0.12

Answer: B



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7. At the rate of 8% compound interest per annum, in how many years will Rs. 10000 amount to Rs. 11664?

A. 2 years

B. 4 years

C. 6 years

D. 8 years

Answer: A



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8. The present value of a piece of land is Rs. $2x$. If the value of the land increases at the rate of $2r\%$ per annum, then after $2n$ after years the value of the land will be

A. Rs. $x \left(1 + \frac{r}{100}\right)^n$

B. Rs. $2x \left(1 + \frac{2r}{50}\right)^{2n}$

C. Rs. $2x \left(1 + \frac{r}{50}\right)^{2n}$

D. Rs. $2x \left(1 + \frac{r}{100}\right)^{2n}$

Answer: C



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9. The difference of compound and simple interest of Rs. x at the rate of interest $r\%$ per annum be

A. Rs. $\frac{xr}{100}$

B. Rs. $\left\{ x \left(1 + \frac{r}{100} \right) - \frac{xr}{100} \right\}$

C. Rs. x

D. Rs. 0

Answer: D



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10. At the same rate of interest and for the same period of time in which case is the investment more profitable to

invest same quantity of money in compound and in simple interest?

- A. In simple interest
- B. In compound interest
- C. Both of them
- D. None of them.

Answer: B



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Very Short Answer Question Type

1. If the principal be Rs. p annual rate of compound interest be $r\%$ and interest is compounded m times, then after n

times, write the amount.



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2. If the principal be Rs. p and the annual rate of compound interest be $r\%$ and if interest is compounded at the end of a year, then write the amount after $3\frac{1}{4}$ years.



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3. If the principal be Rs. p and the annual rate of compound interest be $r\%$ then write the amount after n years when interest is compounded at the interval of 3 months.



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4. If the principal be Rs. p and the annual rate of interest be $r_1\%$ in the 1st year $r_2\%$ in the 2nd years, then write the amount after n years.



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5. If interest is compounded at the interval of 6 months, then find the amount of Rs. 20000 at the annual rate of compound interest 20% in $1\frac{1}{2}$ years.



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True False

1. If the rate of compound interest is $r\%$ and the interest is compounded half -yearly, then the amount in n years

$$= \text{Rs. } P \left(1 + \frac{\frac{r}{2}}{100} \right)^n \text{ where } p = \text{principal.}$$

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2. The simple interest and compound interest of a certain sum of money for two years are Rs. 400 and Rs. 410 respectively. Then the rate of interest per annum is 5%.

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3. If the rate of interest decreases, then the compound interest also decreases.

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4. The simple and the compound interest for the first year (given at the end of the year) are the same.

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5. In the case of compound interest the principal does not change.

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[Fill In The Blanks](#)

1. After a definite period of time the interest acquired is added to the principal to get the new principal. For the definite period of time, if the interest is calculated on the new principal, then the interest is called..... Interests.

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2. Amount = Principal + (_ _ _ _)

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3. If $p = Rs. 8000$, $r = 10$, $t = 1\frac{1}{2}$ years and interest is compounded half yearly, the compound interest for $1\frac{1}{2}$ years = _ _ _ _ _.

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4. = Amount – Principal.

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5. The compound interest of Rs. b at the rate of $a\%$ compound interest per annum in c years is

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Short Answers Type Questions

1. Mr. Patul deposited Rs. 15000 in a bank. If the rate of annual compound interest be 12% then find the amount after 9

months when interests is compounded at the interval of 3 months.



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2. Find the amount of Rs. 16000 at the rate of annual compound interest 10% in 2 years when interest is compounded at the interval of 6 months.



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3. Mr. Banerjee deposited Rs. 25000 in a bank for 6 months at the annual rate of compound interest 8%. Find the amount Mr. Banerjee will get after 6 months when interest is compounded at the interval of 3 months.



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4. Ganesh bought a refrigerator for Rs. 30000 in credit. If the rate of compound interest is the 1st year be 5%. In the 2nd year be 10% and in the 3rd year be 15%, then find the total amount he would have to pay after 3 years.

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5. Determine the compound interest of Rs. 24000 in $2\frac{1}{3}$ years at the rate of annual compound interest 15%.

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6. At the rate of half -yearly compound interest a sum of money amounts $\frac{9261}{8000}$ times of it then find the rate of interest.

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7. If the half yearly compound interest obtained by a person be 5% then what will be the rate of interest in yearly system of interest?

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8. A principal amounts Rs. 1210 and Rs. 1331 respectively in 2 years and 3 years at the rate of compound interest. Calculate the principal.



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9. The total population of a country is 2×10^8 . If the population increases at the rate of 12.5% at the interval of each 2 years, then what will be the population of the country after 6 years.



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10. What will be the compound interest of Rs. 50000 in 6 months at the rate of compound interest 12% per annum when interest is compounded at the interval of 3 months?



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Long Answer Type Questions

1. Rohit invested Rs. 10000 for 3 years at the rate of compound interest of 10%. Find the amount obtained by him after 3 years.

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2. Ramesh deposited Rs. 8000 in a bank for 2 years at the rate of compound interest of 5% per annum. After 2 years what amount of money will the bank repay him?

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3. Find the compound interest of Rs. 12000 in 3 years at the rate of 10% compound interest per annum.

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4. Find the mean of the Binomial distribution $B\left(4, \frac{1}{3}\right)$

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5. A borrowed some money for 2 years at the rate of compound interest of 8%. If A had repaid an amount of Rs. 2916 after 2 years, then how much money did A borrow?

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6. At the rate of compound interest of 10% per annum, find the sum of money, the compound interest of which is Rs. 331 after 3 years.



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7. At what rate of compound interest per annum the amount of Rs. 10000 after 3 years will be Rs. 13310?



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8. Amar bought a T.V by borrowing Rs. 4000. If the rate of compound interest for 1st and 2nd year be 5% and 15% respectively, then after 2 years how much amount he have to pay the price of T.V?



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9. At the rate of compound interest of 10% per annum, find the sum of money for which the difference of compound interest and the simple interest in 2 years is Rs. 500.



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10. Nikhil deposited Rs. 6000 in a bank at the rate of compound interest of 5% per annum. If Arun, the elder brother of Nikhil, also deposit Rs. 5000 in the post office at the rate of compound interest 8% per annum, then what will be the difference of the two interests obtained by them after 2 years?



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11. At a certain of compound interest if the amount of Rs. 400 in 2 years be Rs. 441, then when the rate of compound interest is increased by 5% per anum, how much more money will be got after 2 years?



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12. A sum of money becomes $2\frac{1}{2}$ times after 6 years at a certain rate of compound interest per annum, then how much time will the sum of money become after 18 years?



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13. Determine the principal for which the compound interest is more than the simple interest Rs. 6.40 in 2 years at the rate of compound interest 8% per annum.

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14. If the deposited money in a monetary found becomes $\frac{216}{125}$ times in 3 years, then find the rate of compound interest per annum.

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15. If the amounts of a sum of money be Rs. 672 in 2 years and Rs. 714 in years, then find the rate of compound interest per annum.



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16. A and B borrowed an equal sum of money at the rate of 5% per annum, with simple and compound interest respectively. If B paid Rs. 15 more than A after 2 years as the interest, then find their respective sum of money.



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17. Divides Rs. 1301 between Nikhil and Ashin in such a way that at the rate of compound interest of 4% the amount obtained by Nikhil after 7 years is equal to that obtained by Ashim after 9 years.



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18. Find the difference between compound and simple interest of Rs. 16000 at the rate of interest of 5% per annum when interest is compounded at the interval for 6 months.

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19. At the rate of 4% compound interest per annum the difference between compound and simple interest of a sum of money is Rs. 20 .Find the sum of money.

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20. If the compound and simple interest of a certain principal in 2 years be Rs. 40.80 and Rs. 40 respectively, then find the principal and the rate of interest in percent per annum.



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21. If the ratio of the compound interest in 3 years and the simple interest in 2 years of a certain principal be 13:4 then what will be the rate of interest?



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22. At the rate of 5% compound interest per annum, in how many years will a principal of Rs. 4000 amount to Rs. 4410?



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23. In how many years will the principal Rs. 800 amount of Rs. 882 at the rate of compound interest of 5% per annum?



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24. In how many years will Rs. 64000 amount to Rs. 68921 at the rate of 5% compound interest per annum when the interest is compounded at the interval of 6 months?



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25. Ramen obtained simple interest Rs. 1600 by depositing a sum of money in a bank after 4 years at the rate of 4% simple interest per annum. If the same sum of money will be deposited in the bank at the rate of 10% compound interest per annum, then what will be the obtained compound interest?



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26. What will be the compound interest of Rs. 12000 in 2 years at the rate of 20% compound interest per annum, when interest is compounded at the interval of 6 months?

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27. What will be the compound interest of Rs. 1000 in 18 months at the rate of 10% compound interest per annum when the interest is compounded at the interval of 6 months?

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28. What will be the compound interest of Rs. 320000 in 1 year at the rate of 20% compound interest per annum when the interest is compounded at the interval of 3 months?

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29. Shyam deposited Rs. 7500 for 6 months in a bank. If the rate of compound interest be 8% per annum and interest is compounded at the interval of 3 months, then what amount will Shyam obtain after 6 months?

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30. If the interest compounded at the interval of 6 months and the rate of compound interest be 5% per annum, then in

how years will Rs. 64000 amount to Rs. 68921?



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31. The population of a city increases by 5% per annum. If the present population of a city be 370440 then what was its population before 3 years?



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32. The population of a town increases by 15% per annum. If the population of the town in 2013 be 4000 then what will be its population in 2015?



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33. The present value of a car is Rs 400000. If the value of the car decreases by 10% per annum, then find the value of the car after 3 years.

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34. The length of a tree increases by $\frac{1}{8}$ parts of it every year. If the present length of the tree be 64 centimetres, then what will be the length of the tree after 2 years?

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35. The population of a town was 62500 before 2 years. Due to migration the population of the town decreases by 4% per annum. Then what is the population of the town at present?

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36. If the production of cars of an industry rises from 40,000 to 48,400 in 2 years, then what is the rate of increase of production of cars per annum in percentage?

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37. The value of a new car is rs. 360000. If the value of the car decreases by 10% per annum in the first 2 years and then by 20% for each year, then what will be the value of the car after 3 years?

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38. The present value of a house is Rs. 100000. If the value of the house decreases by 10% per annum, then what will be the value of the house after 3 years.

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39. The value of a house is Rs. 500000. If the value of the house decreases by 10% every year, then after how many years will the value of the house be Rs. 364500?

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40. Ratan bought a scooter for Rs. 16000. If the value of the scooter becomes Rs. 14440 after 2 years, then what is the

rate of decrease of the value of the scooter in percentage per annum?



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41. The present value of a motor -cycle is Rs. 24057. If the value of the motor cycle was decreased by 10% pr annum, then what was value of the motor -cycle before 3 years?



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42. The population of a state increases by 10% per 3 years. If the present population of the state be 3993000, then what was the population of the state before 6 years?



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43. The population of a city was 800000 before 3 years. If the population of the city increases by 5%, 6% and 7% in the last 3 years, then what is the present population of the city?



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44. The rate of depreciation of a machine is 15% of its value in the beginning of the year. If the value of the machine is Rs. 6141250 at the end of 3 years, then what was the value of the machine at the beginning of the first year?



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45. The value of a new machine is Rs. 360000. The rate of depreciation of the value of the machine in the first 2 years be 10% per annum and for the next years it is 25% per annum. So what will be the value of the machine after 4 years?



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