



MATHS

BOOKS - UNITED BOOK HOUSE

Compound Interest and Uniform rate of Increase or Decrease

Exercise

1. Multiple Choice Questions (MCQ) The compound interest of ₹ 10,000 in 2 years at

the rate of 5% annum is.

A. ₹ 11025

B. ₹ 1025

C. ₹ 1052

D. ₹ 11052.

Answer:



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2. The sum of money will amount to ₹ 3528 in 2 years at 5% compound interest is

A. ₹ 3002

B. ₹ 3020

C. ₹ 3200

D. none of these.

Answer:



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3. The interest on ₹ 5000 for 2years is ₹ 480,
the rate of compound interest per annum is

A. 0.04

B. 0.05

C. 0.06

D. 7%.

Answer:



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4. The present value of a piece of land is ₹ $4x$. If the value of the land increases at the rate of $4r\%$ per annum, then after $2n$ years the value of the land will be

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

B. ₹ $4x \left(1 + \frac{2r}{25}\right)^{2n}$

C. ₹ $4x \left(1 + \frac{r}{25}\right)^{2n}$

D. ₹ $4x \left(1 + \frac{r}{50}\right)^n$

Answer:



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5. The ratio of compound interest in second year and the simple interest of a principal at $12\frac{1}{2}\%$ per annum in 2 years is

A. 12 : 17

B. 9 : 16

C. 16 : 9

D. 4 : 3.

Answer:





6. The difference of compound interest and simple interest in a year of ₹ x at the rate of interest $r\%$ per annum will be

A. ₹ $xr/100$

B. ₹ $x(1 + r/100)$

C. ₹ $x(1 + r/100) - 2r/100$

D. 0

Answer:



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7. The least number of complete years in which a sum of money put out at 20% compound interest will be more than double is

A. 2years

B. 4years

C. 6years

D. none of these.

Answer:



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8. If the compound interest in 1 year of a certain principal at a certain rate per annum be ₹ x and the simple interest for 1 year is ₹ y , then

A. $x = y$

B. $x > y$

C. $x < y$

D. $x \leq y$

Answer:



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



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10. The compound interest on ₹ p in 2 years at 10% per annum is

A. ₹ $19p/100$

B. ₹ $p/10$

C. ₹ $11p/100$

D. ₹ $21p/100$.

Answer:



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11. What is the difference between the compound interest on ₹ 5000 for 1.5 years at 4% per annum and half yearly?

A. ₹. 3.06

B. ₹. 2.04

C. ₹. 4.80

D. ₹. 8.30

Answer:



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12. There is 60% increase in an amount in 6 years at simple interest. What will be the compound interest of ₹ 12,000 after 3 years at the same rate?

A. ₹ 2160

B. ₹ 3972

C. ₹ 3120

D. ₹ 6240

Answer:



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13. A bank offers 5% compound interest calculated on half-yearly basis a customer deposits ₹ 1600 each on 1st January and 1st July of a year. At the end of the year, the amount he would have gained by way of interest is_____

A. ₹ 122

B. ₹ 123

C. ₹ 120

D. ₹ 2521

Answer:



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14. Find the compound interest on ₹ 16,000 at 20% per annum for 9 months, compounded quarterly.

A. ₹ 2522

B. ₹ 2520

C. ₹ 2523

D. ₹ 2521

Answer:



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15. The difference between compound interest and simple interest on an amount of ₹. 15,000 for 2 years is ₹ 96. What is the rate of interest per annum?

A. 10

B. 8

C. 12

D. cannot be determined

Answer:



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16. The differences between simple and compound interests compounded annually on

a certain sum of money for 2 years at 4% per annum is Re 1. The sum (in ₹) is ____

A. 650

B. 630

C. 625

D. 640

Answer:



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17. Albert invested an amount of ₹ 8000 in a fixed deposit scheme for 2 years at compound interest rate 5 p.c. p.a. How much amount will Albert get on maturity of the fixed deposit?

A. ₹ 8820

B. ₹ 8600

C. ₹ 8620

D. none of these.

Answer:



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18. The effective annual rate of interest corresponding to a nominal rate of 6% per annum payable half-yearly is___

A. 0.0607

B. 0.0606

C. 0.0608

D. 0.0609

Answer:





19. Andrews earns an interest of ₹ 1596 for third year and ₹ 1400 for the second year on the same sum. Find the rate of interest if it is lent at compound interest_____

A. 0.15

B. 0.13

C. 0.12

D. 0.14

Answer:



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20. A sum amounts to ₹ 882 in 2 years at 5% compound interest. The sum is ____

A. ₹ 822

B. ₹ 840

C. ₹ 800

D. ₹ 816

Answer:



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21. On a certain sum of money, the simple interest for 2 years is ₹ 200 at the rate of 7% per annum. Find the difference in C.I. and S.I._____

A. ₹ 7

B. ₹ 9

C. ₹ 11

D. ₹ none of these

Answer:



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22. If the simple interest on a sum at 4% per annum for 2 years is Rs. 80, then the compound interest on the same sum for the same period is?

A. 0.01

B. 0.02

C. 0.03

D. 0.04

Answer:



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23. At what rate per annum will ₹ 32000 yield a compound interest of ₹ 5044 in 9 months interest being compounded quarterly?

A. 0.2

B. 0.32

C. 0.5

D. 0.8

Answer:



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24. In what time will ₹ 10,000 amount to ₹ 13310 at 20% per annum compounded half yearly?

A. 3 years

B. $2 \frac{1}{2}$ years

C. 2 years

D. $1 \frac{1}{2}$ years

Answer:



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

A. 8 years

B. 12 years

C. 16 years

D. 20 years

Answer:



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26. Ram invests ₹ 5000 in a bond which gives interest at 4% per annum during the first, 5% during the second year and 10% during the

third year. How much does he get at the end of third year?

A. ₹ 7000

B. ₹ 5006

C. ₹ 6006

D. ₹ 5506

Answer:



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27. Value of a machine in a factory is ₹ 180000.

The value of the machine depreciates at 10% per year. What will be value of the machine after 3 years?

A. ₹ 131220

B. ₹ 131203.80

C. ₹ 129762

D. none of these.

Answer:



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28. At present the sum of the number of students in all the secondary institutions in a district is 3993. If the number of students increased in a year was 10% of that in the previous year, then find the sum of the number of students in all the secondary institutions in the districts 3 years before?

A. 5314

B. 2900

C. 3000

D. none of these.

Answer:



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29. Current population of a village is P and rate of increase of the population per annum is $2r\%$. Then the population after n 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. $P\left(1 + \frac{2r}{100}\right)^{2n}$

Answer:



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