



72. The compound interest earned in two years at 12% per annum is Rs 10176. What is the sum invested?

$\frac{12}{100} = \frac{3}{25}$ 12% प्रति वर्ष की दर से दो वर्षों में अर्जित चक्रवृद्धि ब्याज 10176 रुपये है। निवेश की गई राशि क्या है?

[A] Rs. 50000

[B] Rs. 40000

[C] Rs. 80000

[D] Rs. 60000

$$\left(\frac{28}{25}\right)^2 = \frac{784}{625} \rightarrow \frac{784}{625} - 1 = \frac{159}{625} \rightarrow \frac{159}{625} \times 64 = 10176 \text{ Rs.}$$

$\frac{159}{625} \times 64 \rightarrow 10176 \text{ Rs.}$

$\frac{159}{625} \times 64 \rightarrow 10176 \text{ Rs.}$

$$CI_2 = \left(12 + 12 + \frac{12 \times 12}{100}\right)\%$$

$$25.44\% \rightarrow 10176 \text{ Rs.}$$

73. If the compound interest on a certain sum at $16\frac{2}{3}\%$ per annum for 3 years is ₹38100, find the simple interest on the same sum at the same rate and for the same period.

यदि किसी निश्चित धनराशि पर $16\frac{2}{3}\%$ प्रति वर्ष की दर से 3 वर्षों का चक्रवृद्धि ब्याज ₹ 38100 है, तो उसी धनराशि पर समान दर से और समान अवधि के लिए साधारण ब्याज ज्ञात कीजिए।

(SSC CGL PRE 2025)

[A] ₹32400

[B] ₹30000

[C] ₹27000

[D] ₹43200

$$x \left(\frac{7}{6} \right)^3 = \frac{A}{\frac{9}{16}} + 127 \xrightarrow{\times 300} 38100$$

$$\begin{aligned} & \frac{108}{9/16 \times 300} \times \frac{1}{8} \times 3 \\ & SI_3 = 32400 \end{aligned}$$

74. A sum of ₹7,500 amounts to ₹8,748 after 2 years at a certain compound interest rate per annum. What will be the simple interest on the same sum for $4\frac{3}{5}$ Years at double the earlier interest rate?

₹7,500 की राशि एक निश्चित वार्षिक चक्रवृद्धि ब्याज दर पर 2 वर्ष के बाद बढ़कर ₹ 8,748 हो जाती है पहले की ब्याज दर की दोगुनी दर से $4\frac{3}{5}$ वर्ष के लिए उसी राशि पर साधारण ब्याज क्या होगा?

[A] ₹4,140

[C] ₹8,180

[B] ₹5,520

[D] ₹2,760

$$SI = \frac{7500 \times 16\% \times 23}{5} = 5520$$

$$\times \left(\frac{8748}{7500} \right)^{\frac{1}{2}} = \times \frac{54}{50} + \frac{4}{50} = 8\% \text{ p.a.}$$

75. A sum of ₹3125 amounts to ₹3515.20 in 3 years at $x\%$ p.a., interest being compounded yearly. What will be the simple interest (in ₹) on the same sum and for the same time at $(x+2)\%$ p.a.?

ब्याज वार्षिक रूप में संयोजित होने पर ₹3,125 की राशि $x\%$ वार्षिक चक्रवृद्धि ब्याज दर से 3 वर्ष में ₹3,515.20 हो जाती है। उसी राशि पर उसी अवधि में $(x+2)\%$ वार्षिक दर पर साधारण ब्याज (₹ में) ज्ञात करें।

[A] ~~554~~

~~[B]~~ 562.50

[C] ~~565.50~~

~~[D]~~ 550

$$3125 \times 18\%$$

$$\frac{3515.20 - 3125}{3125} = \frac{390.20}{3125} = \frac{15608}{125000} = \frac{15608}{125000} \times \frac{1}{3} = \frac{15608}{375000} = \frac{15608}{375000} \times \frac{1}{3} = \frac{15608}{1125000} = \frac{15608}{1125000} \times \frac{1}{3} = \frac{15608}{3375000} = \frac{15608}{3375000} \times \frac{1}{3} = \frac{15608}{10125000} = \frac{15608}{10125000} \times \frac{1}{3} = \frac{15608}{30375000} = \frac{15608}{30375000} \times \frac{1}{3} = \frac{15608}{91125000} = \frac{15608}{91125000} \times \frac{1}{3} = \frac{15608}{273375000} = \frac{15608}{273375000} \times \frac{1}{3} = \frac{15608}{820125000} = \frac{15608}{820125000} \times \frac{1}{3} = \frac{15608}{2460375000} = \frac{15608}{2460375000} \times \frac{1}{3} = \frac{15608}{7381125000} = \frac{15608}{7381125000} \times \frac{1}{3} = \frac{15608}{22143375000} = \frac{15608}{22143375000} \times \frac{1}{3} = \frac{15608}{66430125000} = \frac{15608}{66430125000} \times \frac{1}{3} = \frac{15608}{199290375000} = \frac{15608}{199290375000} \times \frac{1}{3} = \frac{15608}{597871125000} = \frac{15608}{597871125000} \times \frac{1}{3} = \frac{15608}{1793613375000} = \frac{15608}{1793613375000} \times \frac{1}{3} = \frac{15608}{5380840125000} = \frac{15608}{5380840125000} \times \frac{1}{3} = \frac{15608}{16142520375000} = \frac{15608}{16142520375000} \times \frac{1}{3} = \frac{15608}{48427561125000} = \frac{15608}{48427561125000} \times \frac{1}{3} = \frac{15608}{145282683375000} = \frac{15608}{145282683375000} \times \frac{1}{3} = \frac{15608}{435848050125000} = \frac{15608}{435848050125000} \times \frac{1}{3} = \frac{15608}{1307544150375000} = \frac{15608}{1307544150375000} \times \frac{1}{3} = \frac{15608}{3922632451125000} = \frac{15608}{3922632451125000} \times \frac{1}{3} = \frac{15608}{11767897353375000} = \frac{15608}{11767897353375000} \times \frac{1}{3} = \frac{15608}{35303692060125000} = \frac{15608}{35303692060125000} \times \frac{1}{3} = \frac{15608}{105911076180375000} = \frac{15608}{105911076180375000} \times \frac{1}{3} = \frac{15608}{317733228541125000} = \frac{15608}{317733228541125000} \times \frac{1}{3} = \frac{15608}{953199685623375000} = \frac{15608}{953199685623375000} \times \frac{1}{3} = \frac{15608}{2859599056870125000} = \frac{15608}{2859599056870125000} \times \frac{1}{3} = \frac{15608}{8578797170610375000} = \frac{15608}{8578797170610375000} \times \frac{1}{3} = \frac{15608}{25736391511831125000} = \frac{15608}{25736391511831125000} \times \frac{1}{3} = \frac{15608}{77209174535493375000} = \frac{15608}{77209174535493375000} \times \frac{1}{3} = \frac{15608}{231627523606480125000} = \frac{15608}{231627523606480125000} \times \frac{1}{3} = \frac{15608}{694882570819440375000} = \frac{15608}{694882570819440375000} \times \frac{1}{3} = \frac{15608}{2084647712458321125000} = \frac{15608}{2084647712458321125000} \times \frac{1}{3} = \frac{15608}{6253943137374963375000} = \frac{15608}{6253943137374963375000} \times \frac{1}{3} = \frac{15608}{18761829412124890125000} = \frac{15608}{18761829412124890125000} \times \frac{1}{3} = \frac{15608}{56285488236374670375000} = \frac{15608}{56285488236374670375000} \times \frac{1}{3} = \frac{15608}{168856464709124011125000} = \frac{15608}{168856464709124011125000} \times \frac{1}{3} = \frac{15608}{506569394127372033375000} = \frac{15608}{506569394127372033375000} \times \frac{1}{3} = \frac{15608}{1519708182382116100125000} = \frac{15608}{1519708182382116100125000} \times \frac{1}{3} = \frac{15608}{4559124547146348300375000} = \frac{15608}{4559124547146348300375000} \times \frac{1}{3} = \frac{15608}{13677373641439044901125000} = \frac{15608}{13677373641439044901125000} \times \frac{1}{3} = \frac{15608}{41032120924317134703375000} = \frac{15608}{41032120924317134703375000} \times \frac{1}{3} = \frac{15608}{123096362772951404110125000} = \frac{15608}{123096362772951404110125000} \times \frac{1}{3} = \frac{15608}{369289088318854212330375000} = \frac{15608}{369289088318854212330375000} \times \frac{1}{3} = \frac{15608}{1107867264956562637001125000} = \frac{15608}{1107867264956562637001125000} \times \frac{1}{3} = \frac{15608}{3323601794869687911003375000} = \frac{15608}{3323601794869687911003375000} \times \frac{1}{3} = \frac{15608}{9970805384609063733010125000} = \frac{15608}{9970805384609063733010125000} \times \frac{1}{3} = \frac{15608}{29912416153827191200030375000} = \frac{15608}{29912416153827191200030375000} \times \frac{1}{3} = \frac{15608}{89737248461481573600091125000} = \frac{15608}{89737248461481573600091125000} \times \frac{1}{3} = \frac{15608}{269211745384444720800273375000} = \frac{15608}{269211745384444720800273375000} \times \frac{1}{3} = \frac{15608}{807635236153334162400820125000} = \frac{15608}{807635236153334162400820125000} \times \frac{1}{3} = \frac{15608}{2422905708460002487202460375000} = \frac{15608}{2422905708460002487202460375000} \times \frac{1}{3} = \frac{15608}{7268717125380007461607381125000} = \frac{15608}{7268717125380007461607381125000} \times \frac{1}{3} = \frac{15608}{2180615137614002238482214375000} = \frac{15608}{2180615137614002238482214375000} \times \frac{1}{3} = \frac{15608}{6541845412842006715446643125000} = \frac{15608}{6541845412842006715446643125000} \times \frac{1}{3} = \frac{15608}{19625536238526020146339929375000} = \frac{15608}{19625536238526020146339929375000} \times \frac{1}{3} = \frac{15608}{58876608715578060439019788125000} = \frac{15608}{58876608715578060439019788125000} \times \frac{1}{3} = \frac{15608}{176629826146734181317059364375000} = \frac{15608}{176629826146734181317059364375000} \times \frac{1}{3} = \frac{15608}{529889478439202543951178093125000} = \frac{15608}{529889478439202543951178093125000} \times \frac{1}{3} = \frac{15608}{1589668435317607631853534279375000} = \frac{15608}{1589668435317607631853534279375000} \times \frac{1}{3} = \frac{15608}{4768905305952822895560602838125000} = \frac{15608}{4768905305952822895560602838125000} \times \frac{1}{3} = \frac{15608}{14306715917858468686681808514375000} = \frac{15608}{14306715917858468686681808514375000} \times \frac{1}{3} = \frac{15608}{42920147753575406059045425543125000} = \frac{15608}{42920147753575406059045425543125000} \times \frac{1}{3} = \frac{15608}{128760443260726218177136276629375000} = \frac{15608}{128760443260726218177136276629375000} \times \frac{1}{3} = \frac{15608}{386281329782178654531408839888125000} = \frac{15608}{386281329782178654531408839888125000} \times \frac{1}{3} = \frac{15608}{1158843989346535963594226519664375000} = \frac{15608}{1158843989346535963594226519664375000} \times \frac{1}{3} = \frac{15608}{347653196803960789078267955899375000} = \frac{15608}{347653196803960789078267955899375000} \times \frac{1}{3} = \frac{15608}{1042959590411882367234803867698125000} = \frac{15608}{1042959590411882367234803867698125000} \times \frac{1}{3} = \frac{15608}{3128878771235647101704411603094375000} = \frac{15608}{3128878771235647101704411603094375000} \times \frac{1}{3} = \frac{15608}{9386636313706941305113234809283125000} = \frac{15608}{9386636313706941305113234809283125000} \times \frac{1}{3} = \frac{15608}{28159908941120823915339704427849375000} = \frac{15608}{28159908941120823915339704427849375000} \times \frac{1}{3} = \frac{15608}{84479726823362471746019113283548125000} = \frac{15608}{84479726823362471746019113283548125000} \times \frac{1}{3} = \frac{15608}{253439180470087415238057339850644375000} = \frac{15608}{253439180470087415238057339850644375000} \times \frac{1}{3} = \frac{15608}{760317541410262245714172019551933125000} = \frac{15608}{760317541410262245714172019551933125000} \times \frac{1}{3} = \frac{15608}{2280952624230786737142516058655799375000} = \frac{15608}{2280952624230786737142516058655799375000} \times \frac{1}{3} = \frac{15608}{6842857872692360211427548175967398125000} = \frac{15608}{6842857872692360211427548175967398125000} \times \frac{1}{3} = \frac{15608}{20528573618077080634282644527902194375000} = \frac{15608}{20528573618077080634282644527902194375000} \times \frac{1}{3} = \frac{15608}{61585720854231241902847933583706583125000} = \frac{15608}{61585720854231241902847933583706583125000} \times \frac{1}{3} = \frac{15608}{184757162562693725708543800751119749375000} = \frac{15608}{184757162562693725708543800751119749375000} \times \frac{1}{3} = \frac{15608}{554271487788081177125631402253359248125000} = \frac{15608}{554271487788081177125631402253359248125000} \times \frac{1}{3} = \frac{15608}{1662814463364243531376894206760077744375000} = \frac{15608}{1662814463364243531376894206760077744375000} \times \frac{1}{3} = \frac{15608}{4988443390092730594130682620280233233125000} = \frac{15608}{4988443390092730594130682620280233233125000} \times \frac{1}{3} = \frac{15608}{14965330170278191782392047860840699699375000} = \frac{15608}{14965330170278191782392047860840699699375000} \times \frac{1}{3} = \frac{15608}{44895990510834575347176143582522099098125000} = \frac{15608}{44895990510834575347176143582522099098125000} \times \frac{1}{3} = \frac{15608}{13468797153250372604152843074756629729375000} = \frac{15608}{13468797153250372604152843074756629729375000} \times \frac{1}{3} = \frac{15608}{40406391459751117812458529224269889188125000} = \frac{15608}{40406391459751117812458529224269889188125000} \times \frac{1}{3} = \frac{15608}{121219174379253353437375587672809667564375000} = \frac{15608}{121219174379253353437375587672809667564375000} \times \frac{1}{3} = \frac{15608}{36365752313776006031212676301842900269375000} = \frac{15608}{36365752313776006031212676301842900269375000} \times \frac{1}{3} = \frac{15608}{109097256941328018093638028905528700808125000} = \frac{15608}{109097256941328018093638028905528700808125000} \times \frac{1}{3} = \frac{15608}{327291770823984054280914086716586102424375000} = \frac{15608}{327291770823984054280914086716586102424375000} \times \frac{1}{3} = \frac{15608}{981875312471952162842742259149758307273125000} = \frac{15608}{981875312471952162842742259149758307273125000} \times \frac{1}{3} = \frac{15608}{294562593741585648852822677744927492181875000} = \frac{15608}{294562593741585648852822677744927492181875000} \times \frac{1}{3} = \frac{15608}{883687781224756946558468033234782476545625000} = \frac{15608}{883687781224756946558468033234782476545625000} \times \frac{1}{3} = \frac{15608}{2651063343674270839675404099704347429636875000} = \frac{15608}{2651063343674270839675404099704347429636875000} \times \frac{1}{3} = \frac{15608}{7953190031022812519026212299113042288908125000} = \frac{15608}{7953190031022812519026212299113042288908125000} \times \frac{1}{3} = \frac{15608}{23859570093068437557078636897339126866725000} = \frac{15608}{23859570093068437557078636897339126866725000} \times \frac{1}{3} = \frac{15608}{7157871027920531267123591069201738059908125000} = \frac{15608}{7157871027920531267123591069201738059908125000} \times \frac{1}{3} = \frac{15608}{21473613083761593801370773207605214179725000} = \frac{15608}{21473613083761593801370773207605214179725000} \times \frac{1}{3} = \frac{15608}{644208392512847814041123196228156425391875000} = \frac{15608}{644208392512847814041123196228156425391875000} \times \frac{1}{3} = \frac{15608}{1932625177538543442123369588684479276175625000} = \frac{15608}{1932625177538543442123369588684479276175625000} \times \frac{1}{3} = \frac{15608}{5797875532615630326370108766053437828526875000} = \frac{15608}{5797875532615630326370108766053437828526875000} \times \frac{1}{3} = \frac{15608}{1739362659784689097911032629816031348558125000} = \frac{15608}{1739362659784689097911032629816031348558125000} \times \frac{1}{3} = \frac{15608}{5218087979354067293733097889448094045674375000} = \frac{15608}{5218087979354067293733097889448094045674375000} \times \frac{1}{3} = \frac{15608}{15654263938062201881200293668344282137023125000} = \frac{15608}{15654263938062201881200293668344282137023125000} \times \frac{1}{3} = \frac{15608}{4696279181418660564360088090503284641106875000} = \frac{15608}{4696279181418660564360088090503284641106875000} \times \frac{1}{3} = \frac{15608}{14088837544255981693080264271509853923320625000} = \frac{15608}{14088837544255981693080264271509853923320625000} \times \frac{1}{3} = \frac{15608}{42266512632767945079240792814529561769961875000} = \frac{15608}{42266512632767945079240792814529561769961875000} \times \frac{1}{3} = \frac{15608}{12679953789830383523772237844358868530988125000} = \frac{15608}{12679953789830383523772237844358868530988125000} \times \frac{1}{3} = \frac{15608}{3803986136949115057131671353307660559296375000} = \frac{15608}{3803986136949115057131671353307660559296375000} \times \frac{1}{3} = \frac{15608}{11411958410847345171395014059922981677888125000} = \frac{15608}{11411958410847345171395014059922981677888125000} \times \frac{1}{3} = \frac{15608}{34235875232542035514185042179768945033664375000} = \frac{15608}{34235875232542035514185042179768945033664375000} \times \frac{1}{3} = \frac{15608}{10270762569762610654255512653930683510099375000} = \frac{15608}{10270762569762610654255512653930683510099375000} \times \frac{1}{3} = \frac{15608}{30812287709287831962766537961792050530298125000} = \frac{15608}{30812287709287831962766537961792050530298125000} \times \frac{1}{3} = \frac{15608}{9243686312786349588829961388537615159089375000} = \frac{15608}{9243686312786349588829961388537615159089375000} \times \frac{1}{3} = \frac{15608}{27731058938359048766489884165612845477268125000} = \frac{15608}{27731058938359048766489884165612845477268125000} \times \frac{1}{3} = \frac{15608}{8319317681507714629946965249683853643180375000} = \frac{15608}{8319317681507714629946965249683853643180375000} \times \frac{1}{3} = \frac{15608}{24957953044523143789840895749051560929540625000} = \frac{15608}{24957953044523143789840895749051560929540625000} \times \frac{1}{3} = \frac{15608}{74873859133569431369522687247154782788621875000} = \frac{15608}{74873859133569431369522687247154782788621875000} \times \frac{1}{3} = \frac{15608}{224621577400708294108568061741464348365865625000} = \frac{15608}{224621577400708294108568061741464348365865625000} \times \frac{1}{3} = \frac{15608}{67386473220212488232570418522439304509759375000} = \frac{15608}{67386473220212488232570418522439304509759375000} \times \frac{1}{3} = \frac{15608}{202159419660637464697711255567317913529278125000} = \frac{15608}{202159419660637464697711255567317913529278125000} \times \frac{1}{3} = \frac{15608}{60647825898191239409313376669195374058783125000} = \frac{15608}{60647825898191239409313376669195374058783125000} \times \frac{1}{3} = \frac{15608}{181943477694573718227940129997586122176349375000} = \frac{15608}{181943477694573718227940129997586122176349375000} \$$

76. Radhika invested a sum of money at a compound interest of 40% per annum compounding half-yearly for 18 months. If the amount received by Radhika at the end of 18 months is ₹51,840, then what was the sum of money (in ₹) invested by Radhika? (A)

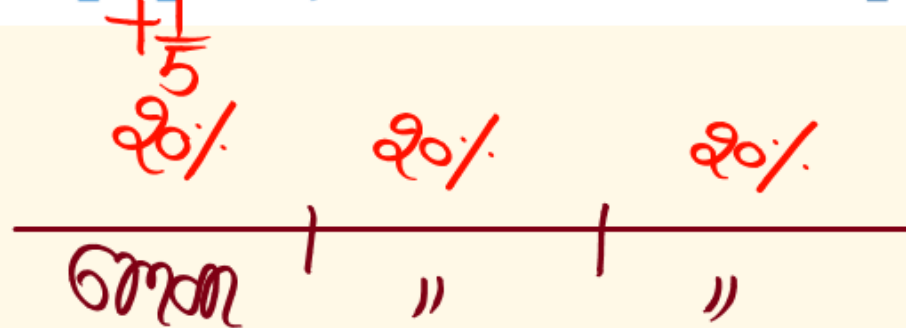
राधिका ने 18 महीने के लिए किसी धनराशि को अर्धवार्षिक रूप से संयोजित होने वाले 40% वार्षिक चक्रवृद्धि ब्याज दर पर निवेश किया। यदि 18 महीने के अंत में राधिका को प्राप्त मिश्रधन ₹51,840 है, तो राधिका द्वारा निवेश की गई धनराशि (₹ में) कितनी थी?

[A] 30,000

[B] 29,500

[C] 29,000

[D] 30,500



$$125 \times 8 \times 3$$

$$\times \left(\frac{6}{5}\right)^3 = \frac{216}{125}$$

Handwritten notes: An arrow points from the fraction $\frac{216}{125}$ to the number 240, and another arrow points from the number 125 to the number 240.

77. A farmer borrowed ₹1,32,000 from a money lender to do cultivation in his field. The rate of interest is 12.5%¹⁸ p.a. compounded annually. At the end of two years, he cleared his loan by paying ₹1,07,062.50 and his scooter. The cost (in ₹) of the scooter is:

एक किसान ने अपने खेत में खेती करने के लिए एक साहू कार से ₹1,32,000 का ऋण लिया। ब्याज की दर 12.5% वार्षिक है और ब्याज वार्षिक रूप से चक्रवृद्धि होता है। दो वर्षों के अंत में, उसने ₹1,07,062.50 और अपना स्कूटर देकर अपने ऋण को चुका दिया। स्कूटर का मूल्य (₹ में) कितना है?

[A] ~~50,000~~

[B] ~~45,000~~

[C] ~~75,000~~

☒ [D] 60,000

scooter → $132000 \times \left(\frac{9}{8}\right)^2 - 107062.5$

9 — 3

6
D.S

78. Find the compound interest on ₹19,375 in 1 year at 8% per annum, the interest being compounded half-yearly.

₹19,375 पर अर्धवार्षिक रूप से चक्रवृद्धित 8% वार्षिक चक्रवृद्धि ब्याज दर से 1 वर्ष का चक्रवृद्धि ब्याज ज्ञात कीजिए।

[A] ₹1,591 ✗
[C] ₹1,541 ✗

[B] ₹1,561 ✗
[D] ₹1,581 ✓

$$CI = 19375 \times 8.16\%$$

7X6
6
D.S

$$\begin{array}{c} 4\% \quad 4\% \\ \hline 6000 \quad | \quad 6000 \end{array}$$

$$\left(4 + 4 + \frac{4 \times 4}{100}\right)\%$$

79. Jonathan had borrowed a sum of money 3 years ago at 10% interest per annum compound annually for a 5 year period, with the amount to be paid at the end of the period being Rs 161051. However, there is no pre-payment penalty and Jonathan has received some bonus payment now, with which he has decided to clear his debt. How much does Jonathan have to pay now to clear his debt?

जोनाथन ने 3 साल पहले 5 साल की अवधि के लिए 10% वार्षिक चक्रवृद्धि ब्याज पर एक धनराशि उधार ली थी, अवधि के अंत में भुगतान की जाने वाली राशि 161051 रुपये थी। हालांकि, पूर्व-भुगतान पर कोई जुर्माना नहीं है और जोनाथन को अब कुछ बोनस भुगतान मिला है, जिससे उसने अपना कर्ज चुकाने का फैसला किया है। जोनाथन को अपना कर्ज चुकाने के लिए अब कितना भुगतान करना होगा?

[A] ~~132000~~
[C] ~~133000~~

[B] 133100
[D] ~~133200~~

$+1/10$

$$\frac{133100}{100} \times 103 = \frac{161051}{121} \times 125$$

80. A sum becomes Rs. 33800 in 2 years and Rs. 43,940 in 3 years, when lent in a scheme of compound interest (compounding annually). If double the sum is invested in the same scheme for 2 years, then what will be the amount obtained at end of 2 years?

एक राशि का (वार्षिक रूप से संयोजित) चक्रवृद्धि ब्याज की एक योजना में निवेश करने पर, वह 2 वर्षों में ^{A₂} Rs. 33,800 और 3 वर्षों में ^{A₃} Rs. 43,940 हो जाती है। यदि उसी योजना में 2 वर्षों के लिए दो गुनी राशि का निवेश किया जाए, तो 2 वर्ष के अंत में प्राप्त होने वाली राशि कितनी होगी?

☒ [A] Rs. 67,600

[B] Rs. 71,240

[C] Rs. 60,420

[D] Rs. 62,480

$$A_n = P \times (1 + R\%)^n$$

81. A man deposits ₹ 1,50,000 at a CI rate of 10% p.a. After the first year's interest is credited, he withdraws 50% of the interest earned. What is his account balance at the end of the second year?

एक व्यक्ति 10% वार्षिक चक्रवृद्धि ब्याज दर पर ₹ 1,50,000 जमा करता है। पहले वर्ष का ब्याज जमा होने के बाद, वह अर्जित ब्याज का 50% निकाल लेता है। दूसरे वर्ष के अंत में उसके खाते में शेष राशि क्या है?

[A] ~~₹1,65,000~~

[B] ~~₹1,72,000~~

[C] ₹1,73,250

[D] ~~₹1,75,000~~

(SSC CHSL PRE 2025)

$$\begin{array}{r} 150000 + 7500 \\ +15000 \quad 750 \\ \hline \end{array}$$

Ans

X11



82. A bank offers following 4 schemes for investment. If a customer wants to invest an amount of Rs P, then which scheme is more beneficial for a customer after a period of 1 year?

एक बैंक निवेश के लिए निम्नलिखित 4 योजनाएं प्रदान करता है। यदि कोई ग्राहक P रुपये की राशि का निवेश करना चाहता है, तो 1 वर्ष की अवधि के बाद ग्राहक के लिए कौन सी योजना अधिक लाभदायक है?

- ☒ I. Rate of interest 24% per annum compounded quarterly/ त्रैमासिक चक्रवृद्धि ब्याज दर 24% प्रति वर्ष
- ☐ II. Rate of interest 24% per annum compounded half-yearly/ ब्याज दर 24% प्रति वर्ष अर्ध-वार्षिक चक्रवृद्धि
- ☐ III. Rate of interest 24% per annum compounded annually/ ब्याज की दर 24% प्रति वर्ष वार्षिक रूप से संयोजित होती है
- ☐ IV. Rate of interest 24% per annum with simple interest/ साधारण ब्याज के साथ 24% वार्षिक ब्याज दर

(ICAR Technician 2022)

[A] IV

[C] II

[B] I

[D] III



83. The effective annual rate of interest corresponding to a nominal rate of 2% per annum, payable half-yearly, is:

अर्द्धवार्षिक रूप से देय 2% वार्षिक नॉमिनल रेट के अनुरूप प्रभावी वार्षिक ब्याज दर _____ है:

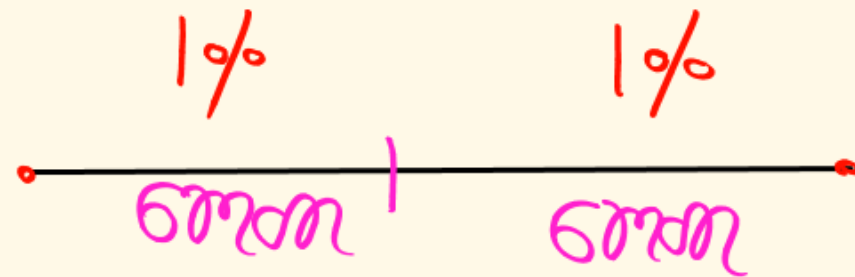
(SSC GD 2022)

[A] 4.02%

☒ [B] 2.01%

[C] 4.2%

[D] 2.1%



$$\left(1 + 1 + \frac{1 \times 1}{100}\right)\%$$
$$2.01\%$$

84. The effective annual rate of interest corresponding to a C.I. rate of 9% per annum payable half yearly is:

चक्रवृद्धि ब्याज की 9% की वार्षिक दर पर प्रभावी ब्याज दर कितनी होगी यदि ब्याज अर्धवार्षिक संयोजित किया जाता है?

[A] ~~9%~~

[B] 9.81%

[C] 9.2025%

[D] 9.333%

4.5% & 4.5%

Sheet-2

compound Interest

time = ?

P ✓
CI, A ✓
Rate ✓



1. The compound interest on Rs. 30,000 at 7% per annum for n years is Rs. 4347. The value of n is.

₹30,000 पर 7% सालाना की दर से n वर्षों के लिए चक्रवृद्धि ब्याज ₹4,347 है। n का मान है।

(SSC GD 2022)

[A] 3

[C] 4

[B] 2

[D] 1.5

$$P \rightarrow \frac{4347}{30000} \times 100\%$$

$$CI = 14.49\% = \left(7 + 7 + \frac{7 \times 7}{100}\right)\%$$

2. In how many years, the compound interest, if compounded annually on a sum of Rs. 60,000 at rate of 8% per annum is Rs. 9,984?

यदि 60,000 रुपये की राशि पर 8% प्रति वर्ष की दर से वार्षिक चक्रवृद्धि ब्याज लगाया जाए, तो कितने वर्षों में चक्रवृद्धि ब्याज 9,984 रुपये होगा?

[A] 3

[C] 4

[B] 1

[D] 2

16%
ब्याज

3. The compound interest on Rs. 30000 at 8.5% per annum is Rs. 5316.75. The period (in years) is?

30000 रुपये पर 8.5% वार्षिक दर से चक्रवृद्धि ब्याज 5316.75 रुपये है। अवधि (वर्षों में) है?

DSSSB ASSISTANT GRADE-III 2024

[A] 2.5 years

[B] 2 years

[C] 1 years

[D] 3.5 years

8.5% + 8.5% = 17%

4. In how many years will Rs. 3,000 yield Rs. 993 as compound interest at 10% per annum compounded annually

₹3,000 की राशि पर 10% सालाना चक्रवृद्धि ब्याज की दर से कितने वर्षों में ₹993 का ब्याज मिलेगा?

[A] 3

[B] 4

[C] 2

[D] 5

$$\frac{993}{3000} \times 100\%$$

$$CI = 33.1\%$$

5. Komal invested a sum of ₹5000 at 20% per annum compound interest, compounded annually. If she received an amount of ₹8640 after n years, the value of n is:

कोमल ने वार्षिक रूप से चक्रवृद्धि, 20% वार्षिक चक्रवृद्धि ब्याज पर ₹5000 की धनराशि का निवेश किया। यदि उसे n वर्षों के बाद ₹8640 की धनराशि प्राप्त हुई हो, तो n का मान ज्ञात करें।

[RRB JE 2024]

[A] 3.5

[C] 3

[B] 4

[D] 2.5

$$20\% p.a. = +\frac{1}{5}$$

$$100 \rightarrow \times \frac{6}{5}$$

ब्याज
 $P \rightarrow \frac{3640}{5000} \times 100\%$

$$CI = 72.8\%$$

$$A \rightarrow \frac{8640}{5000} = \left(\frac{6}{5}\right)^3$$

6. If a sum of ₹3,500 is invested at 5% compound interest per annum, compounded annually, then what is the period for which the compound interest is ₹358.75?

यदि ₹3,500 की राशि को 5% वार्षिक चक्रवृद्धि ब्याज पर निवेश किया जाता है, जो वार्षिक रूप से संयोजित होता है, तो वह अवधि क्या है जिसके लिए चक्रवृद्धि ब्याज ₹358.75 है?

Group D, 26/08/2022 (Morning)

[A] 20 months / 20 महीने

[B] 24 months / 24 महीने

[C] 18 months / 18 महीने

[D] 15 months / 15 महीने

10%⁺
C.I

24/08

7. A sum of ₹10,00,000 is invested in a bank at 19% interest per annum compounded annually. On maturity, the amount payable becomes ₹16,85,159. Find the time period of the investment.

एक बैंक में ₹10,00,000 की राशि 19% वार्षिक चक्रवृद्धि ब्याज दर पर निवेश की जाती है, जहां ब्याज वार्षिक रूप से संयोजित होता है। परिपक्वता पर, देय मिश्रधन ₹16,85,159 हो जाता है। निवेश की समयावधि ज्ञात कीजिए?

[RRB NTPC 12th LEVEL 2025], [IB ACIO GRADE-2 2025]

[A] 1 year

[B] 3.5 years

[C] 3 years

[D] 2.5 years

20% → 72.8%
CI₃

$$CI = 68.5159\%$$

19% p.a

8. If a sum of Rs. 20500 is lent at 30% per annum on compound interest, after how many years an amount of Rs. 34645 will be obtained?
यदि 20500 रुपये की राशि को 30% प्रति वर्ष चक्रवृद्धि ब्याज पर उधार दिया जाता है, तो कितने वर्षों के बाद 34645 रुपये की राशि प्राप्त होगी?

UP S.I. 25/11/ 2021 (Morning)

[A] 4

[B] 1

[C] 2

[D] 3

$$\frac{+14145}{20500} \times 100\%$$
$$CI = 69\%$$