



Financial Literacy
Formula For Compound Interest

Financial Literacy
Formula For Compound Interest

$I = Prt$

$B = P(1+rt)$

You borrow \$1000, and agree to pay the bank 6% interest compounded annually. How much would you owe after 6 years if you made no payments before then?

t	Principal and Interest	Annual Interest	Balance at End of Year	Or, Balance at End of Year
1	\$1,000	\$1,000(0.06)	\$1,000(1.06)	\$1,000(1.06) ¹
2				
3				
4				
5				
6				

Financial Literacy
Formula For Compound Interest

$I = Prt$

$B = P(1+rt)$

You borrow \$1000, and agree to pay the bank 6% interest compounded annually. How much would you owe after 6 years if you made no payments before then?

t	Principal and Interest	Annual Interest	Balance at End of Year	Or, Balance at End of Year
1	\$1,000	\$1,000(0.06)	\$1,000(1.06)	\$1,000(1.06)
2	\$1,000(1.06)	\$1,000(1.06)(.06)	\$1,000(1.06)(1.06)	\$1,000(1.06) ²
3				
4				
5				
6				

Financial Literacy
Formula For Compound Interest

$I = Prt$

$B = P(1+rt)$

You borrow \$1000, and agree to pay the bank 6% interest compounded annually. How much would you owe after 6 years if you made no payments before then?

t	Principal and Interest	Annual Interest	Balance at End of Year	Or, Balance at End of Year
1	\$1,000	\$1,000(0.06)	\$1,000(1.06)	\$1,000(1.06)
2	\$1,000(1.06)	\$1,000(1.06)(.06)	\$1,000(1.06)(1.06)	\$1,000(1.06) ²
3	\$1,000(1.06) ²	\$1,000(1.06) ² (.06)	\$1,000(1.06)(1.06)(1.06)	\$1,000(1.06) ³
4	\$1,000(1.06) ³	\$1,000(1.06) ³ (.06)	\$1,000(1.06)(1.06)(1.06)(1.06)	\$1,000(1.06) ⁴
5	\$1,000(1.06) ⁴	\$1,000(1.06) ⁴ (.06)	\$1,000(1.06)(1.06)(1.06)(1.06)(1.06)	\$1,000(1.06) ⁵
6	\$1,000(1.06) ⁵	\$1,000(1.06) ⁵ (.06)	\$1,000(1.06)(1.06)(1.06)(1.06)(1.06)(1.06)	\$1,000(1.06) ⁶

$B = P(1+r)^t$

Financial Literacy
Formula For Compound Interest

$I = Prt$

$B = P(1+rt)$

$B = P(1+r)^t$

If your credit card balance is \$1,200.00, and the bank is charging you 18% interest compounded annually, and you make no payments, what would your balance be in 5 years?

You try it!

Financial Literacy
Formula For Compound Interest

$I = Prt$

$B = P(1+rt)$

$B = P(1+r)^t$

If your credit card balance is \$1,200.00, and the bank is charging you 18% interest compounded annually, and you make no payments, what would your balance be in 5 years?

$B = \$1,200(1.18)^5$

$B = \$2,745.31$

You try it!

Financial Literacy
Formula For Compound Interest

$I = Prt$
 $B = P(1+rt)$
 $B = P(1 + r)^t$

You try it!

You opened an account at The Bank of Bedlam 4 years ago today. The account pays 5% interest compounded annually. You have made no withdrawals or deposits since then. The balance is now \$7,293.40. What was your original Principal deposit?

Financial Literacy
Formula For Compound Interest

$I = Prt$
 $B = P(1+rt)$
 $B = P(1 + r)^t$

$\$7,293.40 = P(1 + .05)^4$
 $\$7,293.40 = P(1.2155)$
 $\$6,000.30 = P$

You try it!

You opened an account at The Bank of Bedlam 4 years ago today. The account pays 5% interest compounded annually. You have made no withdrawals or deposits since then. The balance is now \$7,293.40. What was your original Principal deposit?

Financial Literacy
Formula For Compound Interest

www.MasterMath.info

Test your progress with Worksheets, Quizzes and Exams!
