Answer on Question #78830 – Math – Financial Math

Question

A loan is offered with monthly payments and a 9.00 percent APR. What's the loan's effective annual rate (EAR)?

Solution

$$n = 12$$

$$APR = 0.09 = 9\%$$

Based on the given information, we can find the loan's effective annual rate (EAR):

$$EAR = \left(1 + \frac{APR}{n}\right)^n - 1 =$$

$$= \left(1 + \frac{0.09}{12}\right)^{12} - 1 = 1.0938 - 1 = 0.0938 = 9.38\%.$$

Answer: the loan's effective annual rate is 9.38%.