Cost of Borrowing

STUDENT ACTIVITY

Directions:

Using the information from the scenarios below, solve the equations. Use the following formulas and show your work.

Total Accrued Amount = Principle(1 + Interest Rate * Time period)
Interest = Principle * Interest Rate * Time Period

1. Lina wants to remodel her kitchen. Her contractor has quoted her $2,500 for the project. Lina will take out a home improvement loan from her bank. The loan has a two percent monthly, simple interest rate. Her minimum payments are $250. How long will it take for her to pay off the loan.

   If Lina wants to pay the loan off in six months, what should her payments be? Round to the nearest dollar.

2. Ben is a college student who needs to spend $600 on books. His bank offers a loan for students purchasing books, which has a monthly simple interest rate of two percent which needs to be fully paid back in six months. How much would Ben pay in total for his books once he repaid the loan?

   Ben's other option is to buy the books using his credit card, which has an annual simple interest rate of 15 percent and if he only paid the minimum on his card would take five years to repay. How much would Ben pay in total for his books if he chose this option?

3. Nikita's home loan is for $200,000 over 30 years. The simple interest on her loan is four percent annually. How much interest will she pay when the loan reaches the maturity date?