Worksheet 10/9/2023

Amortization formula: $P = \frac{p}{i}\left(1 - \frac{1}{(1+i)^n}\right)$

where P = principal, p = monthly payment, i = interest rate per period, n = number of periods.

1) Suppose you are interested in buying an iPhone 15 Pro. Go to apple.com/iphone-15-pro/ and find out the principal, monthly payment, and the number of payments. Find the monthly interest rate. When the phone is paid off, how much will you have paid?

2) You can afford monthly payments of $2000. If the current interest rate is 5% for a 30-year fixed rate loan, how much can you afford to borrow? If you are required to make a 20% down payment and you have the cash on hand to do it, how expensive a home can you afford?