Consider the Following:

- Effie goes to a tax preparer who determines she’s entitled to a $651.17 refund. The tax preparer offers to give her a check for $621.17 right away (rather than Effie waiting for the IRS to receive her taxes, process them, issue and mail a check). In exchange Effie agree to sign over her $651.17 IRS check to the tax preparer when it arrives.

- Two Ways to Tell the Story:
  - Effie took out a loan for $621.17. She will pay $30 in interest, bring the total amount she will repay to $651.17

    \[
    \begin{array}{ll}
    \text{Principal} & \text{Interest} \\
    $621.17 & +$30.00 \\
    \hline
    \text{Total Amount to be Repaid (Maturity Value)} & $651.17
    \end{array}
    \]

  - Effie will repay her $651.17 tax refund to the Tax Preparer. Since she will owe $30 in interest, the amount of her loan will be $621.17.

    \[
    \begin{array}{ll}
    \text{Total Amount to be Repaid (Maturity Value)} & \text{Interest} \\
    -$30.00 & \hline
    \text{Principal} & $621.17
    \end{array}
    \]
Simple Interest Loan or Simple Discount Loan

Borrower

Lender

Simple Interest Loan (I need to borrow $$$$$)

Borrower

Lender

Simple Discount Loan (I will repay $$$$$ $)

Borrower

Lender

(Extra $ is the Interest)

(Extra $ is the Discount)

(Total Amt Repaid)

(Principal)

(Maturity Value = Face Value)

(Proceeds)

(it is a percent of the Principal)

(it is a percent of the Maturity Value)
Examples

1. Cato knows he will be getting a $1000 paycheck at the end of the week, but he needs money today for medical bills. He finds a lender who will loan him money at a simple discount rate of 6%. His plan is to take out as large a loan as he can pay off with his $1000.00 paycheck in one week.

   (a) Identify the face value of this discount note (discount loan).
   (b) What is the discount of this discount note?
   (c) What are the proceeds of this discount note?

2. A $450 face value note has a term of 120 days. The simple discount rate is $4\frac{1}{4}$%. Find both the amount of the simple discount and the proceeds of this note.

3. A 6 month note is discounted $375, and the simple discount rate is 7.5%. Determine the maturity value and the proceeds of this note.

4. Refer back to the example of Effie and her Tax Preparer. Determine the simple discount rate she paid assuming it took exactly 3 months for her check to arrive.

5. Gale bought a $2,000 T-Bill at auction for $1952.00. The term of the T-Bill was 13 weeks. Determine the simple discount rate.

6. (Optional) The Capital some cash-flow problems. They know they have $25,000 that will be coming in 2 months from today, but they need some money in the mean time. They get a discount loan with a face value of $25,000 and a 2 month term. The simple discount rate is 11.15%. How much money (from this discount loan) do they now have in their budget?

7. (Optional) Haymitch is terrible at record keeping (and too drunk to remember whether things happened last week or last year). He has a discount note with a face value of $750 that he paid $654.25 for. The simple discount rate was 4.5%, determine the term of this discount note.