1. What type of interest is mentioned?

**Compound Interest**

\[ I = Prt \]
\[ A = P + I \]
\[ A = P + Prt \]
\[ A = P(1 + rt) \]

**Simple Interest** (stop and figure)

\[ I = \frac{Prt}{n} \]
\[ A = P + I \]
\[ A = P + \frac{Prt}{n} \]
\[ A = P(1 + \frac{rt}{n}) \]

2. How many deposits or payments?

**Multiple or Periodic** (stop and figure)

\[ A = P \left(1 + \frac{r}{n}\right)^{nt} \]

**Single** (stop and figure)

\[ A = P \left(1 + \frac{r}{n}\right)^{nt} \]

3. When is the “big money” needed?

**NOW** – You make a large purchase in the **present** and pay it off over time.

\[ PV = \frac{pmt \left(1 - (1 + \frac{r}{n})^{-nt}\right)}{\frac{r}{n}} \]

**LATER** – You will be saving up to have a large amount in the **future**.

\[ FV = \frac{pmt \left(1 + \frac{r}{n}\right)^{nt} - 1}{\frac{r}{n}} \]
Effective rate – sometimes called the effective annual yield – is the simple interest rate that produces the same amount of money in an account at the end of one year as when the account is subjected to compound interest at a stated rate.

\[ Y = \left(1 + \frac{r}{n}\right)^n - 1 \]

Be sure to convert your decimal calculator result to a percent.

Credit Card Average Daily Balance

\[ ADB = \frac{\text{sum of the daily balances}}{\text{number of days in the billing cycle}} \]

Credit Card Interest (This is the monthly finance charge on the Average Daily Balance):

\[ I = ADB \times \text{monthly rate} \times 1(\text{month}) \]

\[ I = ADB \times \frac{\text{APR}}{12} \times 1(\text{month}) \]