1. What type of interest is mentioned?

**Simple Interest** (stop and figure)

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

**Compound Interest**

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

2. How many deposits or payments?

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

**Single**

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

3. When is the “big money” needed?

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

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

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

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

**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.

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

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

**Rule of 72**

\[ \frac{72}{EY\%} = \text{years to double} \]

**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):

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

or

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