**MAP 4C ANNUITIES AND MORTGAGES FORMULA SHEET**

**Simple Interest**

$I=Prt$ $A=P+I$ $r=\frac{\%}{100}$

**Compound Interest**

$A=P(1+i)^{n}$ $I=A-P$

**If the interest is compounded annually:**

$i= \frac{\%}{100}$ $n=number of years$

**If the interest is not compounded annually:**

$i= \frac{\%}{[\left(number of compounding periods per year\right)\left(100\right)]}$

$$n=(number of compounding periods per year)(number of years)$$

**Annuities – Future Value**

$FV= \frac{R\left[\left(1+i\right)^{n}-1\right]}{i}$ $R= \frac{(i)(FV)}{\left[\left(1+i\right)^{n}-1\right]}$

**Annuities – Present Value**

$PV= \frac{R\left[1- \left(1+i\right)^{-n}\right]}{i}$ $R= \frac{(i)(PV)}{\left[1- \left(1+i\right)^{-n}\right]}$