Review for 09-22-2016

Annuities Payable Less Frequently than Interest Conversion:

(a) Find the effective interest rate per payment period – use methods from chapter 3.

(b) Formulas: i = eff. interest rate per interest conversion period.

Annuity Immediate –

$$PV = \frac{a_{\overline{n}|i}}{s_{\overline{k}|i}} \qquad FV = \frac{s_{\overline{n}|i}}{s_{\overline{k}|i}}$$

Annuity Due –

$$PV = \frac{\ddot{a}_{\overline{n}|i}}{\ddot{a}_{\overline{k}|i}} \qquad FV = \frac{\ddot{s}_{\overline{n}|i}}{\ddot{a}_{\overline{k}|i}}$$

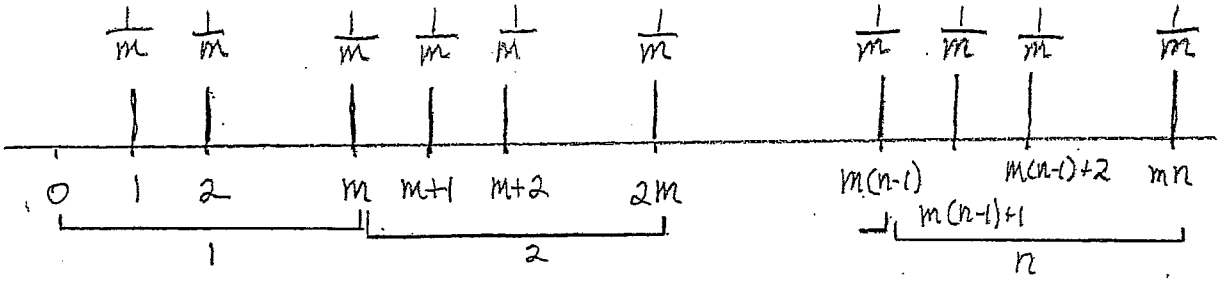
Perpetuity Immediate –

$$PV = \frac{1}{i\, s_{\overline{k}|i}}$$

Perpetuity Due –

$$PV = \frac{1}{i\, a_{\overline{k}|i}}$$

Annuities Payable More Frequently than Interest Conversion.



PV: $a_{\overline{n}|}^{(m)} = \frac{1-v^n}{i^{(m)}} = \frac{i\,a_{\overline{n}|}}{i^{(m)}}$

FV: $s_{\overline{n}|}^{(m)} = \frac{(1+i)^n - 1}{i^{(m)}} = \frac{i\,s_{\overline{n}|}}{i^{(m)}}$

i = effective interest rate per interest conversion period

$i^{(m)}$ = nominal interest rate per interest conversion period when compounded m^{th} ly.