

Math 125 Section 5.3 – Annuities, Future Value and Sinking Funds

So far, we have only discussed one-time payments. This section turns our attention to REGULAR payments.

DEF: **Ordinary annuity** One where regular payments are made at the END of a payment period (car note)
Annuities DUE Regular payments are made at the BEGINNING of a payment period

Ordinary Annuity (future value)

$$S = R \left[\frac{(1+i)^n - 1}{i} \right] \text{ where } R \text{ is the regular payment, } i = \frac{r}{m} \text{ and } n = mt$$

Do Examples 2 and 3

** A **Sinking fund** is a fund set up to RECEIVE regular payments (retirement accounts) and it uses the same formula. (Do example 4 and ex. 5 – to show we can solve for any variable)

Annuities Due

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

Do Example 7.