

**FV<sub>x-1</sub>i = The future value of 1 per unit period for x unit periods, first advance due immediately (at time = 0, which is consummation).**

$$= \sum_{j=0}^{x-1} (1+i)^{x-j}$$

$$= (1+i)^x + (1+i)^{x-1} + \dots + (1+i)^1; \text{ or}$$

$$= \frac{(1+i)^x - 1}{i} \times (1+i)$$