Lecture 10/04/23 + 10/05/23
HW Due:

CRA - Friday
Quiz 5 Friday

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#1 p. 128
3 min

$P(t) = 20\,e^{0.86t}$

(~~Graphics~~ & ~~Suppose~~

**Review**
Compound yearly

$A(t) = P(1+r)^t$ ← effective

Compound n-times per year

$A(t) = P\left(1+\frac{r}{n}\right)^{nt}$ ← nominal

Continuous growth: We want to always be compounding / growing (continuously)

$A(t) = Pe^{rt}$

P = Principal amount
r = continuous interest rate
t = time in years

~~#2~~ Board

~~#4~~ Board

## Effective annual growth rate

- Compounded n-times per year  r = nominal interest rate

$$e.a.g.r = 1-\left(1+\frac{r}{n}\right)^{n} \quad (1-b)$$

- Compounded continuously  r = continuous interest rate

$$e.g.gr = 1 - e^{r} \quad (1-b)$$

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#3 Board
#5 Board