Investment

$$A(t) = A_0(1+r)^t$$

$$A_0\left(1+\frac{r}{n}\right)^{nt}$$

exs) 1a) investment of \$1000 with 8% annual.

$$A(t) = 1000(1.08)^t$$

b) invest \$1000 with 8% compounded semi-annually.

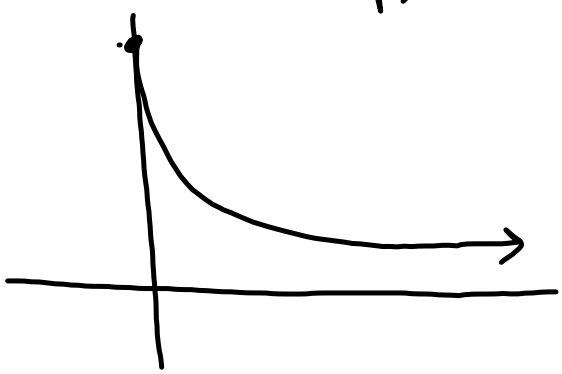
$$0.08 \div 2$$
$$= 0.04$$

$$A(t) = 1000(1.04)^{2t}$$

Coffee Cooling Type

$$T = A(b)^{t/c} + d$$

initial amount (temp) $= A + d$



14a) $3000(1.026)^{2t}$

b) $2500(1.01)^{4t}$

c) $8000(1.005)^{12t}$

d) $6300(1.021)^{t}$

18.

$20000(0.82)^t = 5000(1.04)^t$

$\log 20000 + t\log .82 =$

≈ 5.8 yrs

15. \$4264.41

16b) \$565.70

Interest \$65.70

17. ≈ 11.7 yrs

b) 31.7 yrs