

STA 4183 Review for 9-1-16

Force of Interest

$$\delta_t = \frac{A'(t)}{A(t)} = \frac{a'(t)}{a(t)}$$

$$a(t) = e^{\int_0^t \delta_r dr}$$

$$a(t) \iff \delta_t$$

Constant Force of Interest

$$\delta_t = \delta \quad a(t) = e^{\delta t} = (1+i)^t \quad \delta = \ln(1+i)$$
$$d(t) = e^{-\delta t} = v^t$$

Varying Interest

$$a(n) = (1+i_1)(1+i_2) \dots (1+i_n)$$

$$d(n) = (1-d_1)(1-d_2) \dots (1-d_n)$$

