

STAT 575

Practice Problem for Exam 1 (not to be turned in)

An age-at-failure random variable  $X$  has a force of mortality defined to be

$$\mu_x = \frac{1}{2(100 - x)}, \quad 0 < x < 100.$$

- (a) Give an expression for  $S_X(x)$ .
- (b) Find  $f_{36}(t)$ .
- (c) Compute  ${}_{20}p_{36}$ .
- (d) Compute  ${}^{\circ}e_{36}$ .