

**STAT 472**  
**Fall 2018**  
**Quiz 2**  
September 5, 2018

1. You are given that  $\mu_{50+t} = 0.01 + 0.004t$ .

Calculate  ${}_{3|4}q_{50}$ .

2. You are given that  ${}_t p_{95} = 1 - 0.04t^2$  for  $0 \leq t \leq 5$

Calculate  $\text{Var}[K_{95}]$ .

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1. You are given that  $S_0(x) = \frac{8100 - x^2}{8100}$  for  $0 \leq x \leq 90$ .

Calculate  ${}_{3|4}q_{50}$ .

2. You are given that  ${}_tq_{75} = \frac{t^2 + t}{240}$  for  $0 \leq t \leq 15$ .

Calculate  $\text{Var}[T_{75}]$