## Quiz 4 STAT 479 September 28, 2010

1. Losses prior to any deductible for a health insurance policy are distributed as a Pareto distribution with  $\theta = 1000$  and  $\alpha = 5$ . Losses are subject to a franchise deductible of d.

The expected value per payment after the deductible is 820.

Calculate d.

2. Losses follow an exponential distribution with a mean of 1000. The insurance company wants to implement an ordinary deductible that will result in a loss elimination ratio of 0.5.

Calculate the ordinary deductible to be implemented.