

**Math 477 REAL QUIZ #6**

**NAME:** (print!) \_\_\_\_\_

**E-MAIL ADDRESS:** (print!) \_\_\_\_\_

**1.** (5 points) The number of years a radio functions is exponentially distributed with mean 10 years. If Jones buys a used radio, what is the probability that it will be working an additional 20 years?

**2.** (5 points) The working lifetime, in years, of a particular model of bread maker is normally distributed with mean 2 and standard deviation  $\sqrt{2}$ .

Calculate the 40-th percentile of the working lifetime, in years.