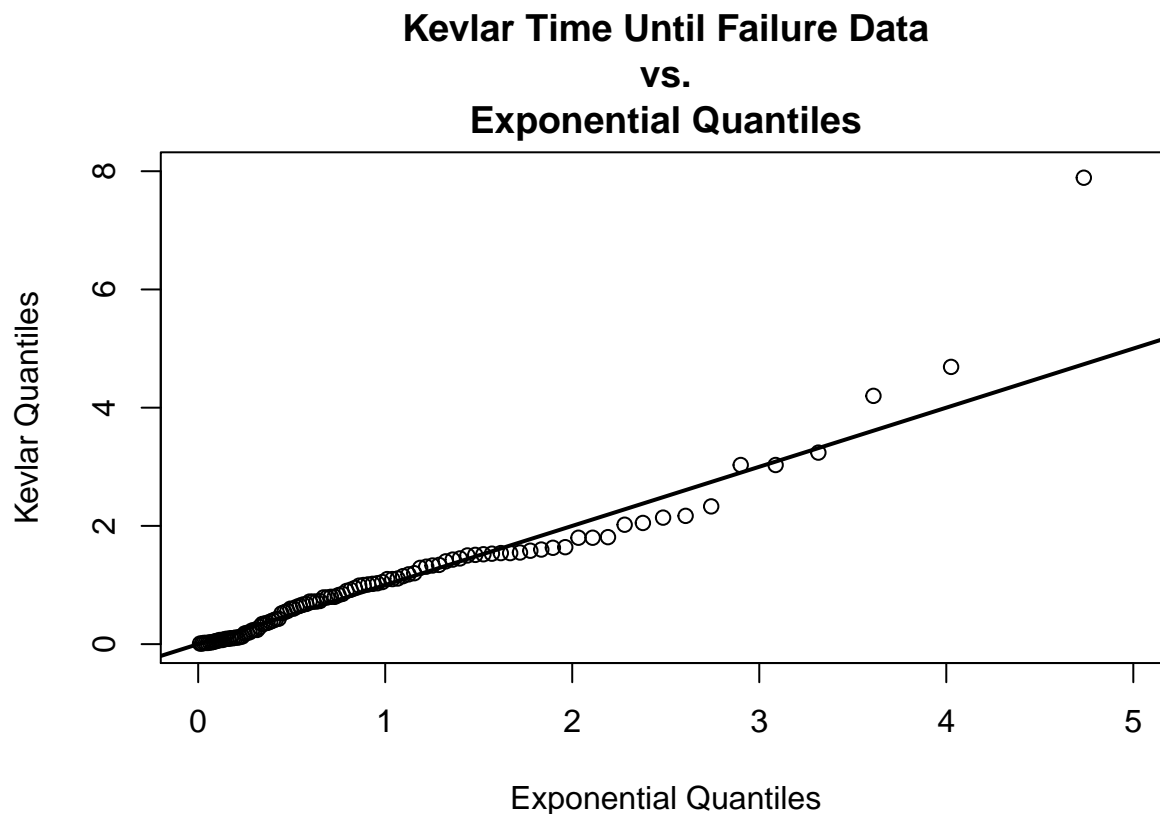# Kevlar Time to Failure

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```r
kevlar = read.csv("/Users/kida/Desktop/Stat 135/Excel CSV/Chapter 9/kevlar90.csv",
                  header = FALSE)[,1]
n = length(kevlar)
rate_mle = 1/mean(kevlar)
quants = qexp(p = (1:n)/(n+1), rate = rate_mle)
plot(x = quants, y = kevlar,
     main = "Kevlar Time Until Failure Data\nvs.\nExponential Quantiles",
     xlab = "Exponential Quantiles", ylab = "Kevlar Quantiles",
     xlim = c(0,5), ylim = c(0,8))
abline(a = 0, b = 1, lwd = 2)
```



The final data point is much higher than the corresponding exponential quantile. This is the statistical explanation for this peculiarness, but I cannot say what the cause of this would be other than randomness. Otherwise, the exponential model appears to fit the data well.