

## HOMEWORK # 2

1. What are special features for survival analysis?
2. What is the interpretation of the hazard function?
3. The following data are remission times, in weeks, for a group of 30 leukemia patients in a certain type of therapy.

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Survival time in weekes  
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1 1 2 4 4 6 6 6 7 8 9 9 10 12 13 14 18 19 24 26  
29 31\* 42 45\* 50\* 57 60 71\* 85\* 91  
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where starred quantities denote censored observations.

Assume this lifetime follows an exponential distribution.

- (a) Estimate the mean remission time and its 95% confidence interval.
- (b) Estimate the median remission time and its 95% confidence interval.
- (c) Estimate the probability of a remission lasting more than 26 weeks.