

## Question #268

Key: E

The uniform kernel spreads the probability of 0.1 to 10 units each side of an observation. So the observation at 25 contributes a density of 0.005 from 15 to 35, contributing nothing to survival past age 40. The same applies to the point at 30. For the next 7 points:

35 contributes probability from 25 to 45 for  $5(0.005) = 0.025$  above age 40.

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37 contributes probability from 27 to 47 for  $7(0.005) = 0.035$  above age 40.

39 contributes probability from 29 to 49 for  $9(0.005) = 0.045$  above age 40.

45 contributes probability from 35 to 55 for  $15(0.005) = 0.075$  above age 40.

47 contributes probability from 37 to 57 for  $17(0.005) = 0.085$  above age 40.

49 contributes probability from 39 to 59 for  $19(0.005) = 0.095$  above age 40.

The observation at 55 contributes all 0.1 of probability. The total is 0.485.