Reliability Analysis Assignment 4 (group)

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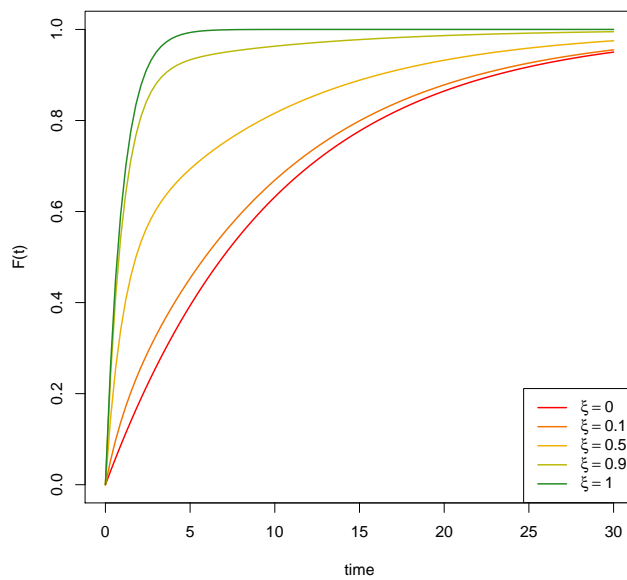2017.05.17

5.2

(a)
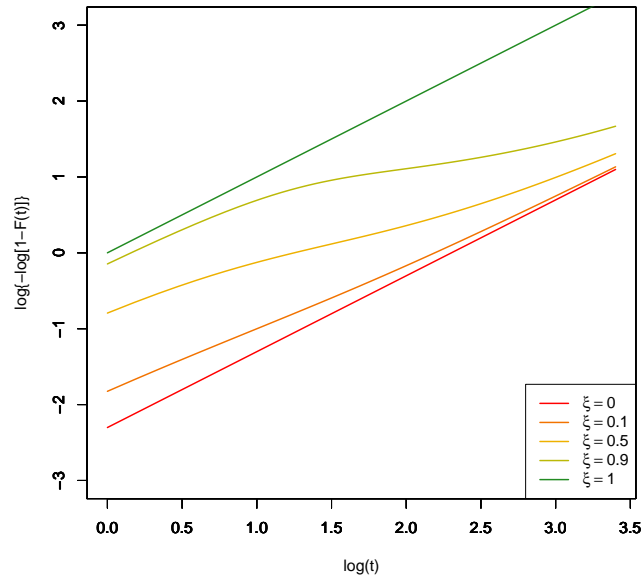
$$F(t;\boldsymbol{\theta}) = \xi F(t;\theta_1) + (1-\xi)F(t;\theta_2) = \xi\left(1 - exp(-t)\right) + (1-\xi)\left(1 - exp(-\frac{t}{10})\right)$$
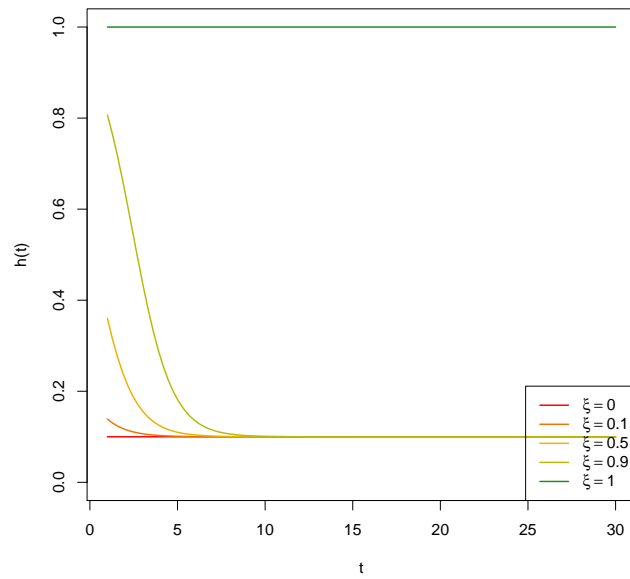
(b)

(c)

The pure exponential distributions, as $\xi = 0$ or 1, are straight lines. Also, the mixture distributions are curves between the two straight lines.
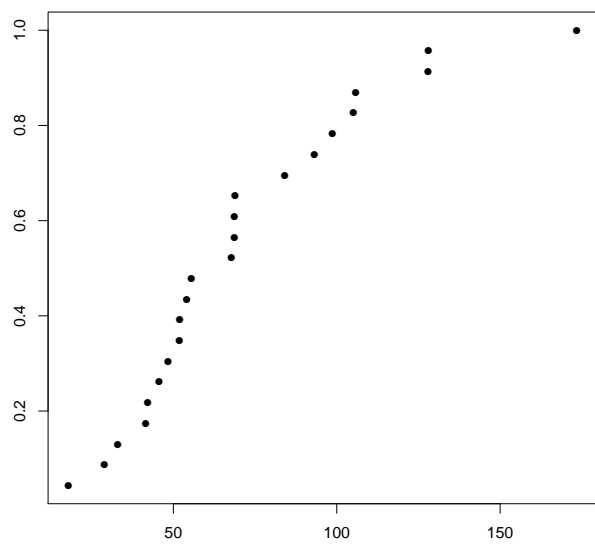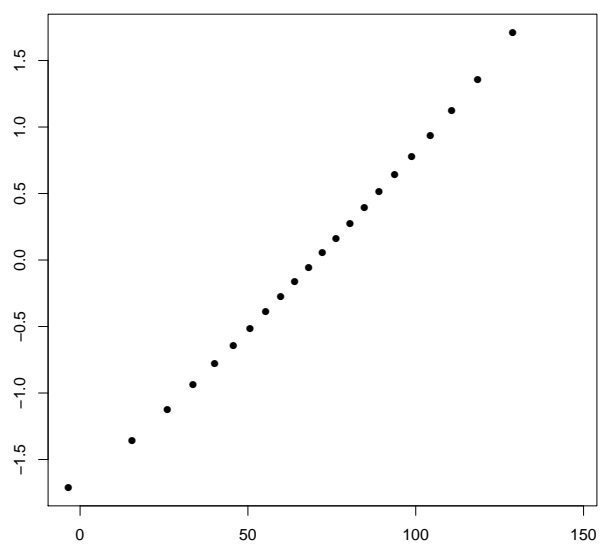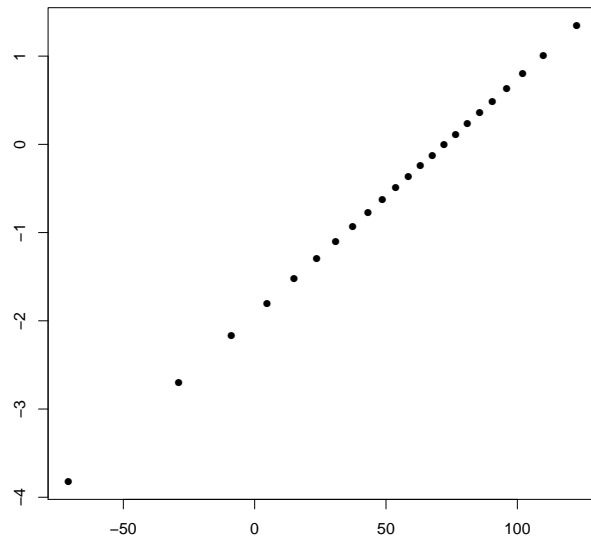
(d)

(e)

6.5

(a)

(b)

(c)

(d) This data fit log-normal distribution the most.