

# 宿題

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## 1 1

today is 2018/04/19 いい天気

- NHPP
- CTMC

## 2 2

today is 2018/04/19

## 3 3

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$$F_X(t) = 1 - e^{-\lambda t} \quad (1)$$

$$f_X(t) = \lambda e^{-\lambda t} \quad (2)$$

today is 2018/04/19

$$\begin{aligned} E[X] &= \int_0^\infty t f_X(t) dt \\ &= [(1 - e^{-\lambda t}t)]_0^\infty - \int_0^\infty (1 - e^{-\lambda t}) dt \\ &= [(1 - e^{-\lambda t}t)]_0^\infty - [t + \frac{1}{\lambda} e^{-\lambda t}]_0^\infty \\ &= \frac{1}{\lambda} \end{aligned} \quad (3)$$

**4 4**

today is 2018/04/19

(1)	(1)	(1)
(2)	(2)	(2)