

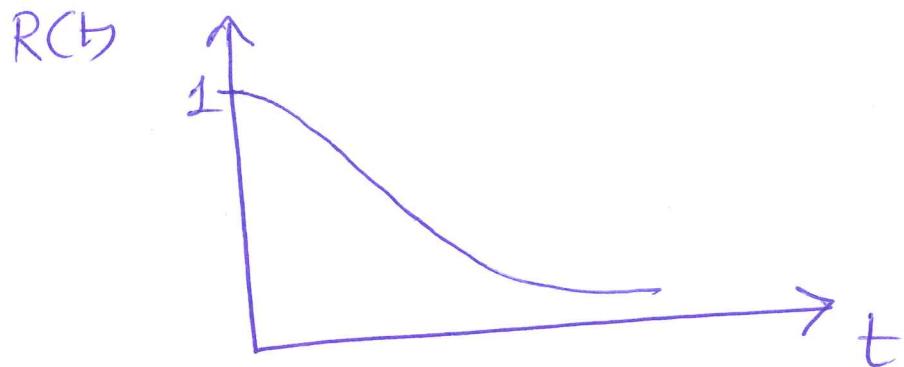
Dependability in the news.

Knight Capital trading

Reliability

$$R(t) = P(\text{No error occurring in time } (0, t))$$

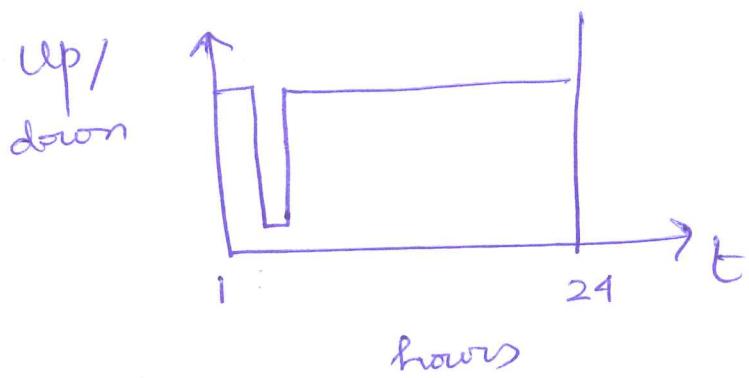
$$0 \leq R(t) \leq 1$$



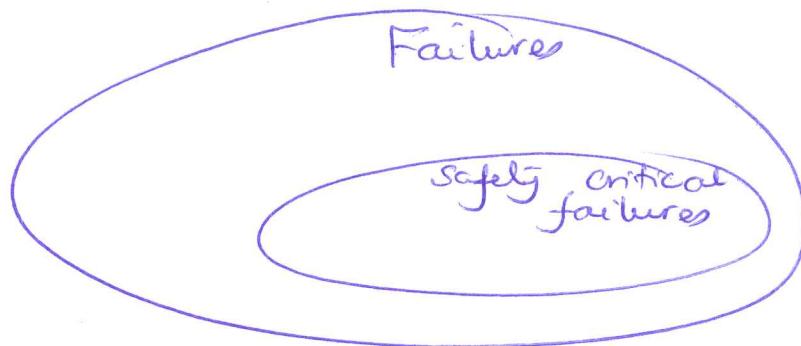
Availability

$$A(t) = \frac{\text{Total time within } (0, t) \text{ that system is operational}}{t}$$

$$0 \leq A(t) \leq 1$$



Safety $\subset S(t) \geq R(t)$ (no safety critical failure in $(0, t)$)



$$S(t) \geq R(t)$$