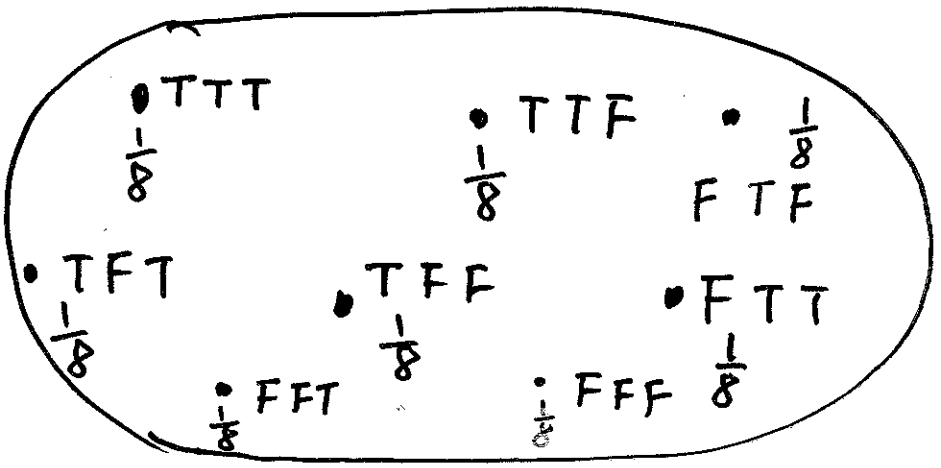
18-11-2008

Recap

- Sample space : set of all possible outcomes of a process



Visualized as a set of points inside an ellipse / Rectangle

- Prob. weight assigned to each point $P(x)$
- Event : subset of points
- Prob of event :

$$P(E) = \sum_{x \in E} P(x)$$

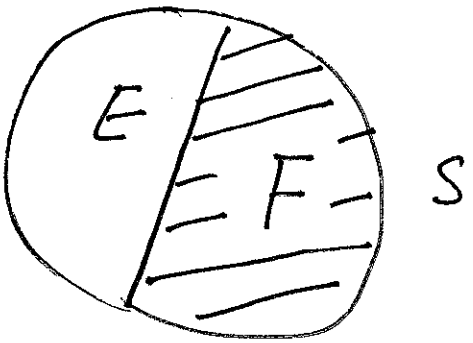
* prob weights sum to 1.

S : Sample space

$$\sum_{x \in S} p(x) = 1$$

* Complement of E:

F: Subset of outcomes (points) outside E



* $P(E) + P(F) = P(S) = 1$

$\Rightarrow P(F) = 1 - P(E)$

$P(E) = 1 - P(F)$

Theorem 5.1