

1.  $H \rightarrow \text{Head}$   
 $T \rightarrow \text{Tail}$

sample space =  $S = \{HHH, HHT, HTH, HTT, THT, TTH, TTT\}$

2. Four outcomes have two heads and a boy

$$A = \{HHT, HTH, THH, HHH\}$$

$$3. A = \{HHH, HHT, HTH, THH\}$$

$$B = \{HTT, THT, TTH, TTT\}$$

$$A \cup B = \{HHH, HHT, HTH, THH, HTT, THT, TTH, TTT\}$$

$$A \cap B = \emptyset \quad \text{mutually exclusive events (disjoint)}$$