

**10 - 3**

**Sample Spaces and  
Tree Diagrams**

sample space: set of all possible outcomes

**Ex: tossing a coin twice**

HT

TH

TT

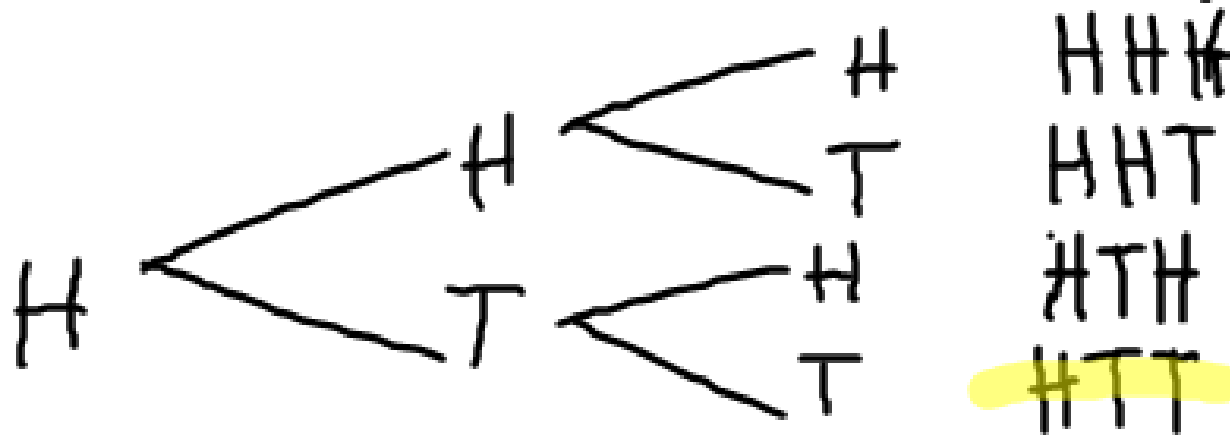
HH

tree diagram: shows possible outcomes

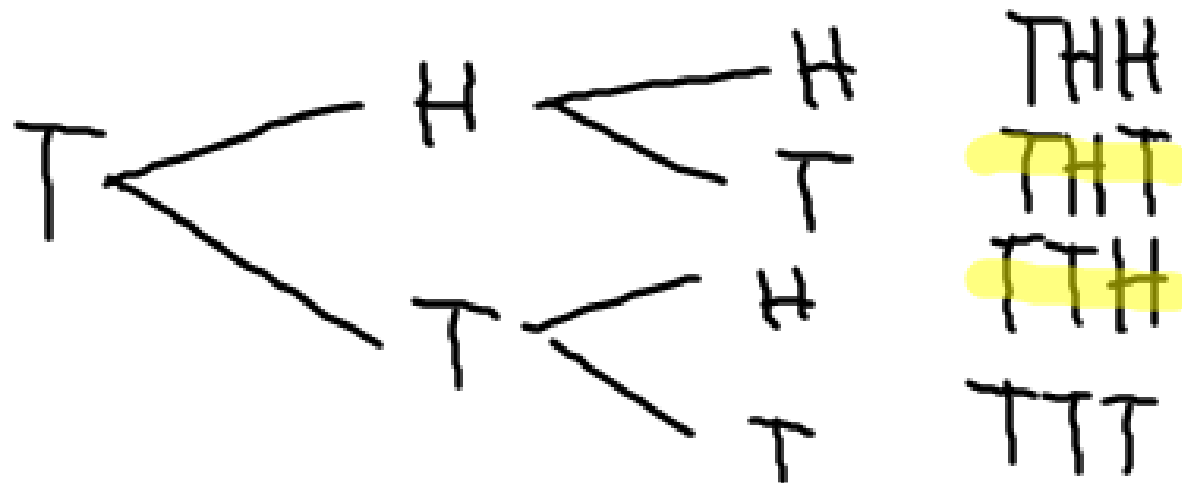
**Ex: penny and nickel are tossed**



Ex: 3 coins are tossed. Find  $P(2 \text{ tails})$ .



$$\frac{3}{8}$$



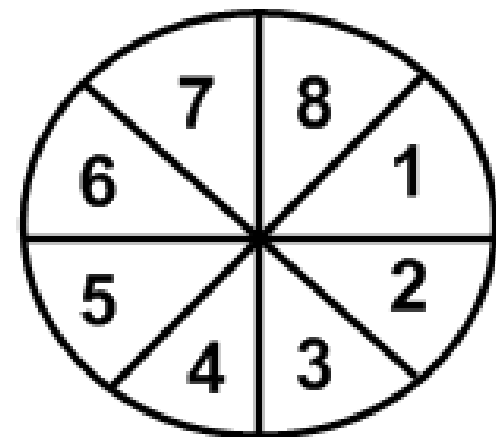
## Ex: toss a coin and spin spinner

a.)  $P(\text{tail and 5})$   $\left(\frac{1}{16}\right)$

b.)  $P(\text{head and even})$   $\frac{4}{16} = \frac{2}{8} = \left(\frac{1}{4}\right)$

H1 H2 H3 .....

T1 T2 T3 .....





Homework:

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