

Flipping two coins

HH

HT

TT

$\frac{2}{3}$

X

HH

HT

TH

TT

$\frac{3}{4}$ at least one head!

$\{H, T\} \times \{H, T\}$

$= \{HH, TH, HT, TT\}$

$$P(E) = \frac{N(E)}{N(S)}$$

N - is the "number of"

$$P(H) = \frac{N(H)}{N(\{H, T\})} = \frac{1}{2}$$

$$P(\text{At least one head}) = \frac{N(\text{at least one head})}{N(\{HH, TH, HT, TT\})}$$
$$= \frac{3}{4}$$

A, 2, 3, 4, 5, 6, 7, 8, 9, 10, J, Q, K



52 cards playing deck!

$$\frac{N(i)}{N(\text{cards})} = \frac{1}{52}$$

$$\frac{13 + 13}{52} = \frac{1}{2}$$

J♥ J♦

$$\frac{2}{52} = \frac{1}{26}$$

$$\{1, 2, 3, 4, 5, 6\} \times \{1, 2, 3, 4, 5, 6\}$$

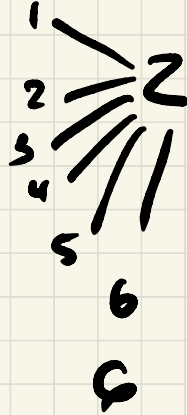
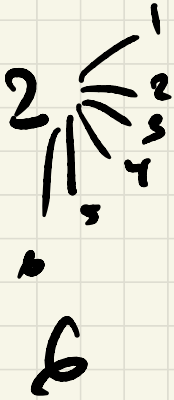
11	12	13	14	15	16
21					
31					
41					
51					
61					

D1	D2	
1	6	6
2	5	5
3	4	4
4	3	3
5	2	2
6	1	1
<hr/>		6

36

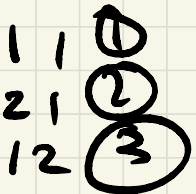
$$\frac{6}{36} = \frac{1}{6}$$

Roll one 2 between the two dice?



$$\frac{12}{36} = \frac{3}{9} = \frac{1}{3}$$

Less than or equal to 3



$$\frac{3}{36} = \frac{1}{12}$$