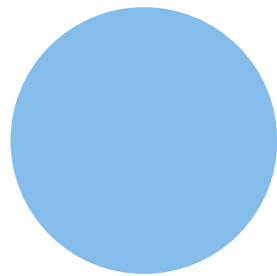


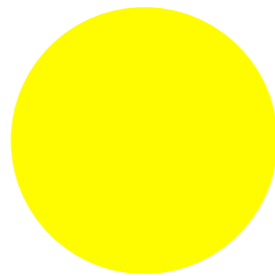
## 2 events : probability to occur together



Ask Mish



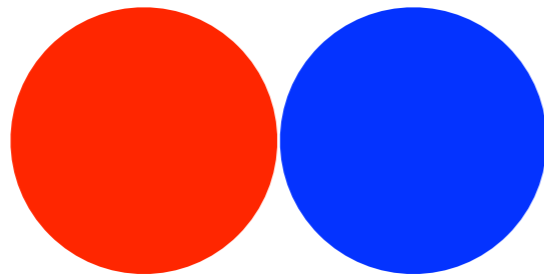
x



### type of event:

1. **Independent events:**  
no connection b/w them,  
e.g. blond hair and catch a cold.

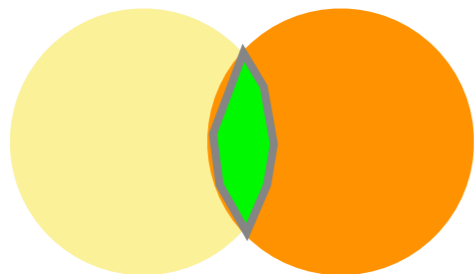
Probability for a blonde to catch a cold (**independent events**): **multiply the probability of each** event expressed as hundredths.



+

2. **Mutual exclusive events:**  
one event excludes the possibility of the other happening in the same time,  
e.g. heads and tails for a coin flip

Probability to have a head or a tail when flipping a coin : **ADD** together the **probability of each** event



+ and

-

3. **Non-mutual exclusive events:**  
one event does not exclude the possibility of the other happening in the same time  
e.g. obese and diabetic

Probability for an obese patient to also have diabetes is **add the 2 probabilities and subtract their product**