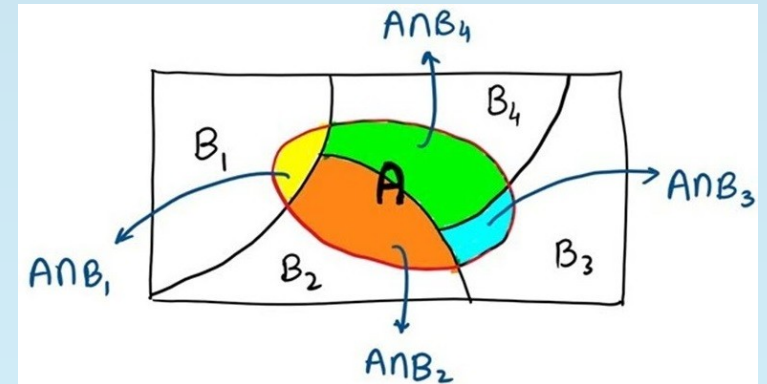


Bayes' Theorem to the Rescue

Fortunately, we can make use of a famous fact about probability called **Bayes' Theorem**:

$$\text{probability (A AND B)} = \text{probability (A)} \cdot \text{probability (B | A)}$$



The chance of A and B both happening is equal to the product of the chance of A happening and the chance of B happening if A has happened.