

<b>Bayes Theorem</b>	<p>Bayes' theorem is used to calculate the conditional probability. Conditional probability is the probability of an event 'B' occurring given the related event 'A' has already occurred.</p> <p>For example, Let's say a clinic wants to cure cancer of the patients visiting the clinic.</p> <p>A represents an event "Person has cancer"</p> <p>B represents an event "Person is a smoker"</p> <p>The clinic wishes to calculate the proportion of smokers from the ones diagnosed with cancer.</p> <p>To do so use the Bayes' Theorem (also known as Bayes' rule) which is as follows:</p> $P(A B) = \frac{P(B A)P(A)}{P(B)}$