**Finance 6510**

**Tony Trotter**

Text

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Bayes’ Law is arguably the most important law or statement of probability theory ever. Bayes Law is important in the study of probability and its financial applications, because with Bayes’ Law it is possible to predict with a high level of confidence what the future has in store based on prior information.



if probability is 20% then the odds in favor of that event are:

Table

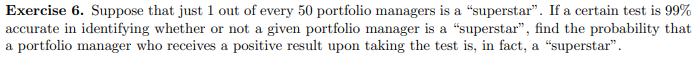
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Timeline

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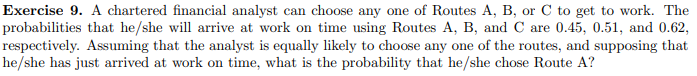


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According to the law of total probability:

Definition: The odds in favor of an event

BAYES’ LAW:

**ODDS**

**Likelihood Ratio**

𝑃

=Odds of (A|B)

Thus, Bayes’ Law states that the conditional odds are nothing more than the prior odds multiplied by the likelihood ratio