Everything about Reasoning with Uncertainty

To construct an RBS find ways of reasoning when there is uncertainty

Certainty Factors

A certainty factor (CF or Confidence Factor) involves a measure which represents a level of confidence that some condition is true

Can be expressed as percentages or numbers

Rules can have CFs associated with them

Condition Combination using AND or OR

CF(A and B) = min CF(A), CF(B)
CF(A or B) = max CF(A), CF(B)

IF **P** THEN **Q** @ **N** - The CF of the conclusion Q is determined by combining the CF of the premise P and the CF of the rule N.

CF(**Q**) = CF(**P**) x **N**/100

Combining Rules

It may happen that a conclusion is supported by more than one rule

Calculate overall CF using:

CF(**C**) = CF1 + CF2(100-CF1)/100

Order is not important