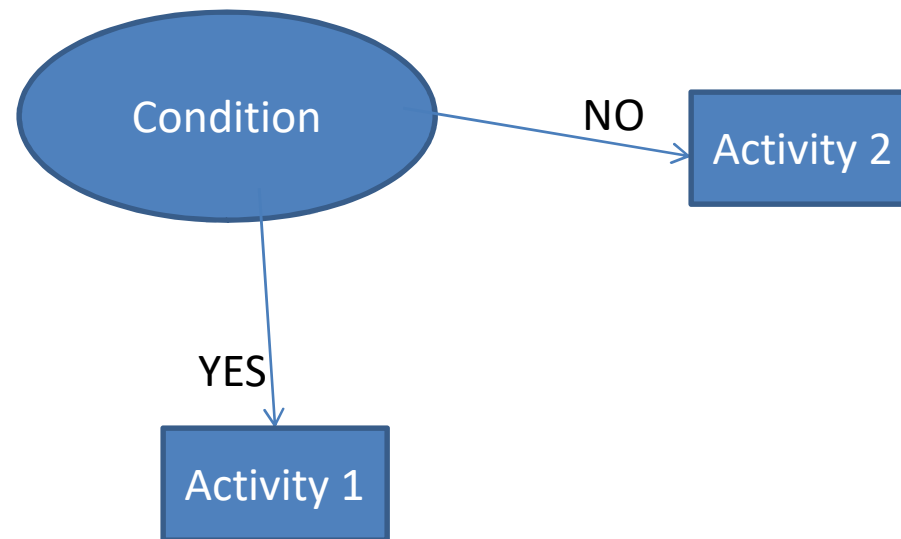


Boundaries of statistical
reasoning, ML & AI are fuzzy

Rule-based decision making

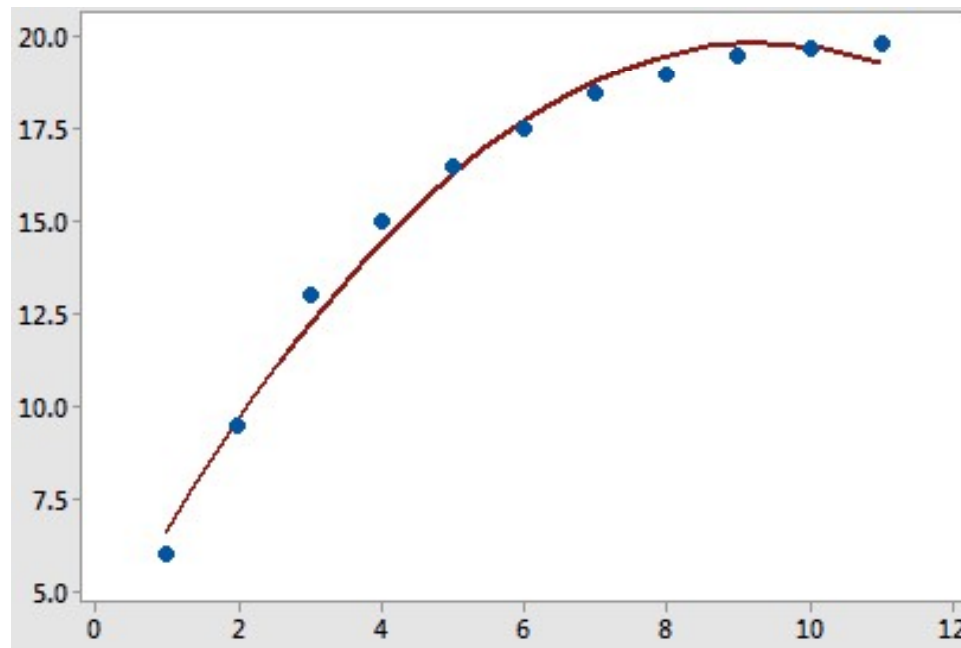
- Boolean Data



- Examples: threshold-based alarms, pattern matching

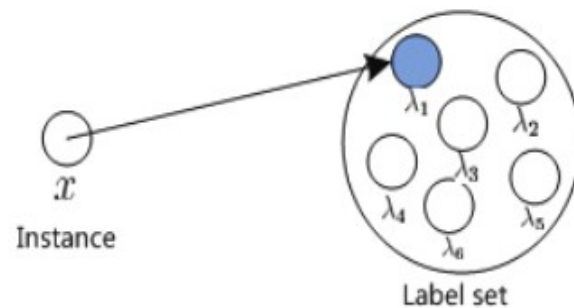
Statistical reasoning

- Numerical data (allowing curve fitting)
- Examples: outlier detection, extrapolation, interpolation

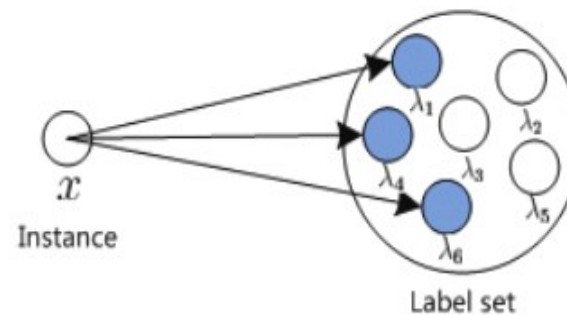


Machine Learning

- Arbitrary data (abstracted to numbers)
- Examples: relevant feature identification from large input data, classification tasks



(a) multiclass classification



(b) multilabel classification

AI

- When presented with arbitrary data, artificial intelligence is autonomous selection of best methodology
- Examples: autonomous vehicles, chat-bots, dynamic adaptation to novelty

