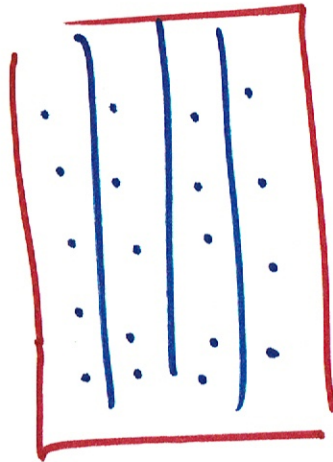
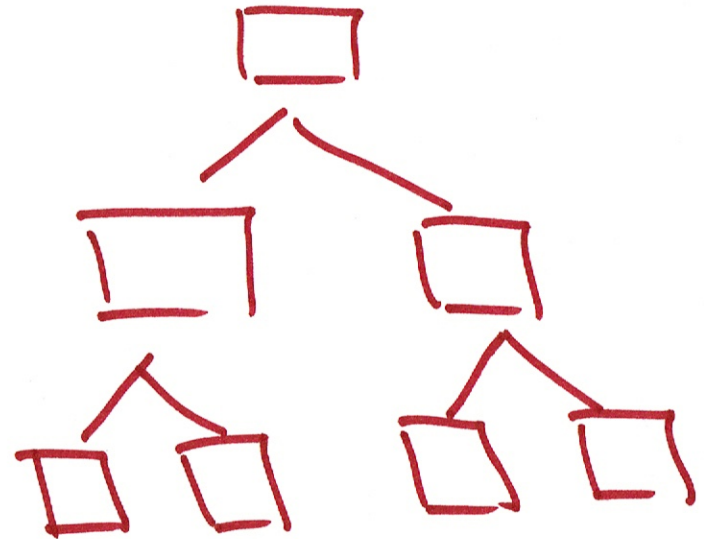


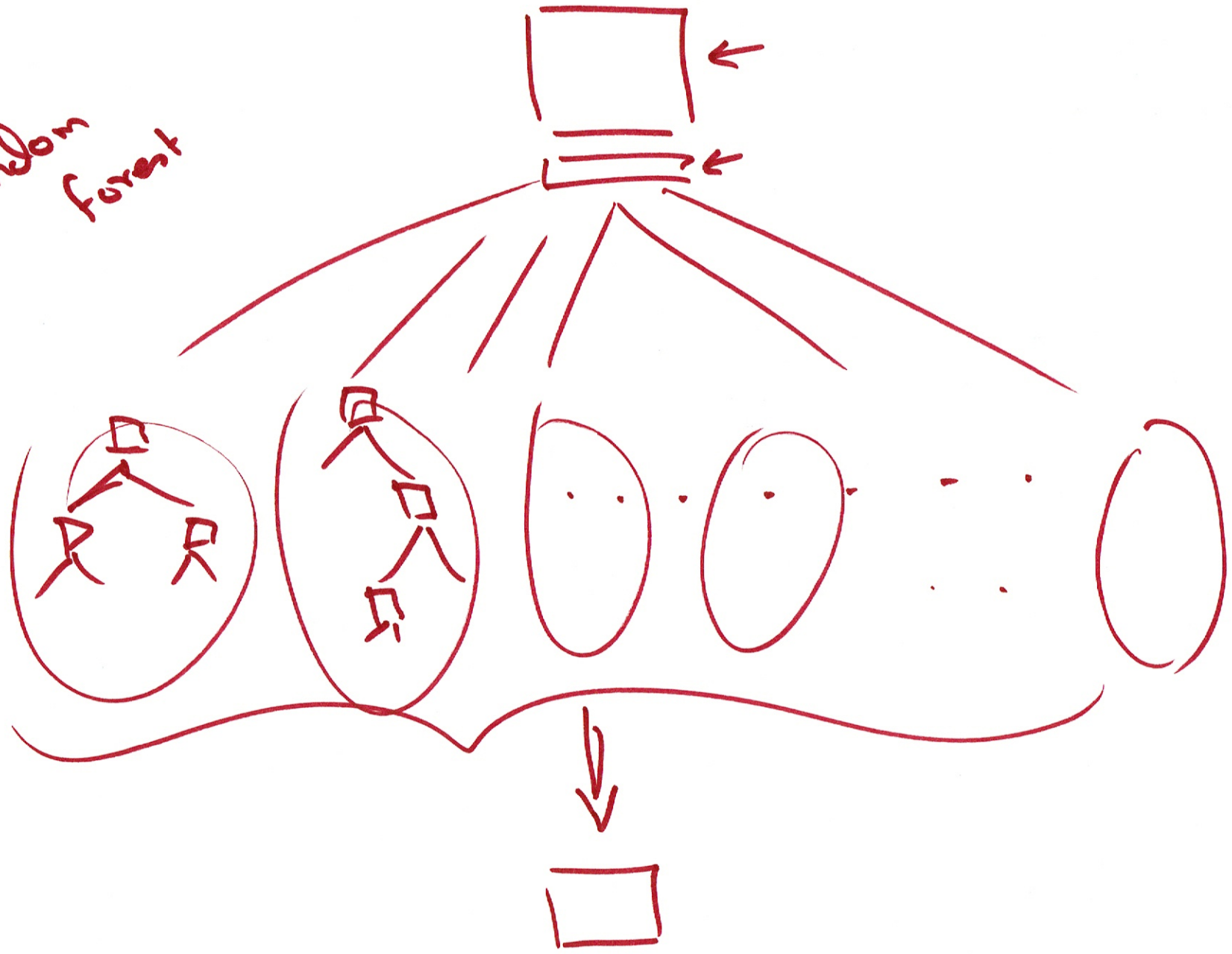
Data



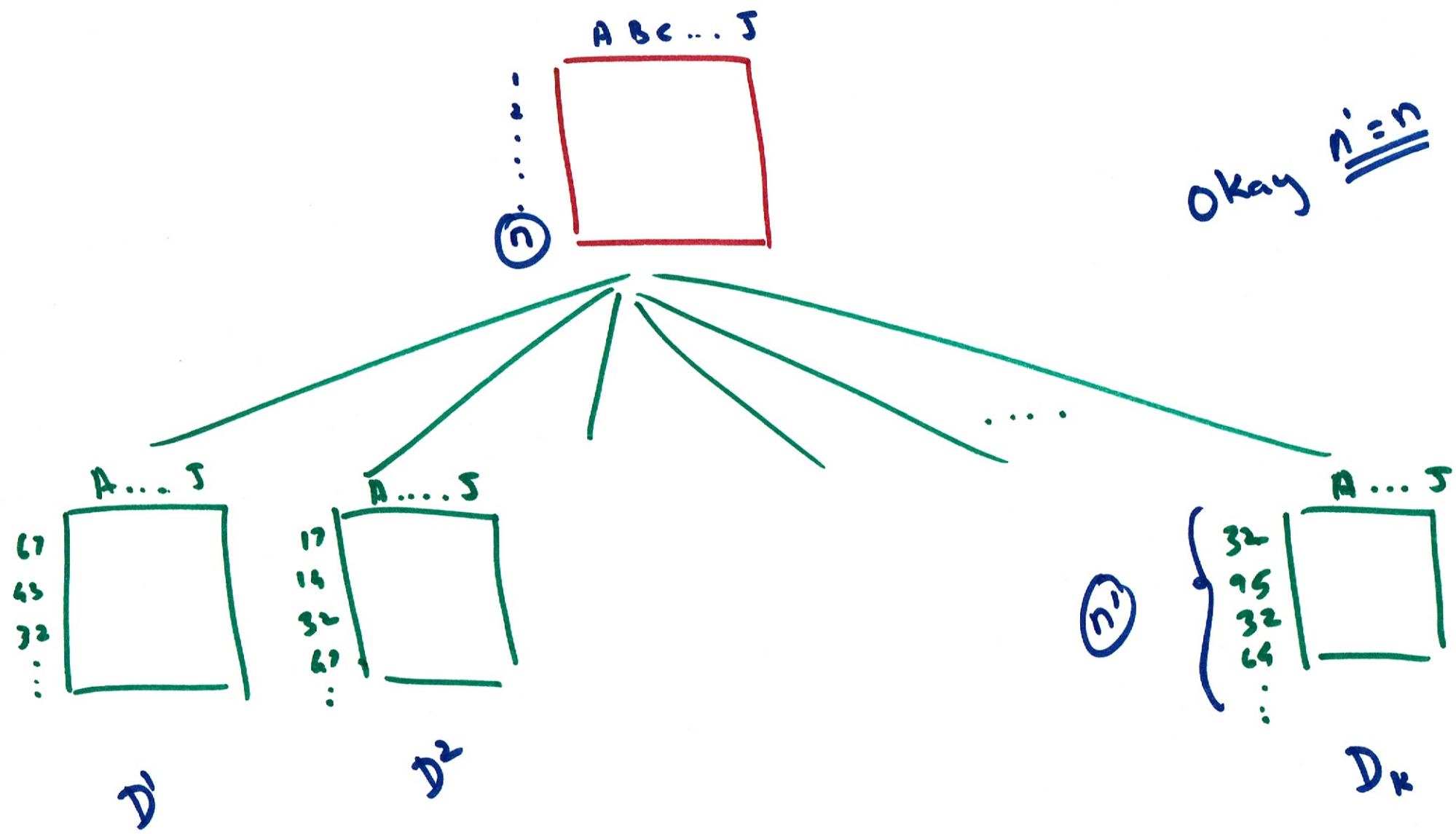
Tree



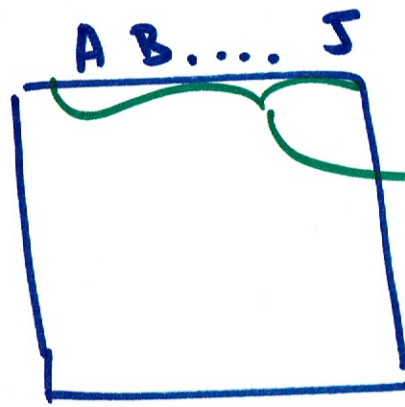
Random forest



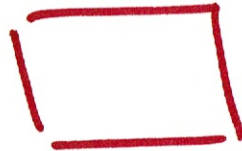
Okay $n = n$



D'



M no. of indep. var




Only $m < M$ can
say A E I

Allow only
say B D J

Allow only
C E F



Random forests

- 
- Random Sampling with replacement
 - For each subset build a decision tree. However, only use **m** randomly pick independent variables for each node's branching possibilities.

 **m** < M

- Do not prune

- While predicting:

- 
- Use each tree to make individual predictions
 - Combine predictions using voting:
 - Means for regression
 - Modes for classification
- 

Say $M = 10 \Rightarrow A \text{ } \textcircled{B} \text{ } \textcircled{C} \text{ } \textcircled{D} \text{ } \textcircled{E}$

