

A Tiny Example

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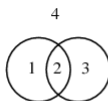
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Suppose we have an (infinite) collection of sets \mathcal{F} .
We define a shatter function $\pi_{\mathcal{F}}(n)$

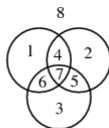
$$\pi_{\mathcal{F}}(n) = \max\{\# \text{ of atoms in boolean algebra generated by } S \\ | S \subset \mathcal{F} \text{ with } |S| = n\}$$



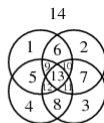
$n = 1$



$n = 2$



$n = 3$



$n = 4$