1 Logic

A few iteresting formal relations:

1. $\neg(\neg p) \Leftrightarrow p$
2. $(p \Rightarrow q) \Leftrightarrow (\neg p \vee q)$
3. $\neg(\forall x\ p(x)) \Leftrightarrow \exists x\ \neg p(x)$

2 Sets

Equality of sets: $x = y \Leftrightarrow \forall z\ (z \in x \Leftrightarrow z \in y)$.

De Morgan's laws:

$$\left[\bigcap_{i\in I} A_i\right]^c = \bigcup_{i\in I} A_i^c,$$

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3 Functions

4 Groups