

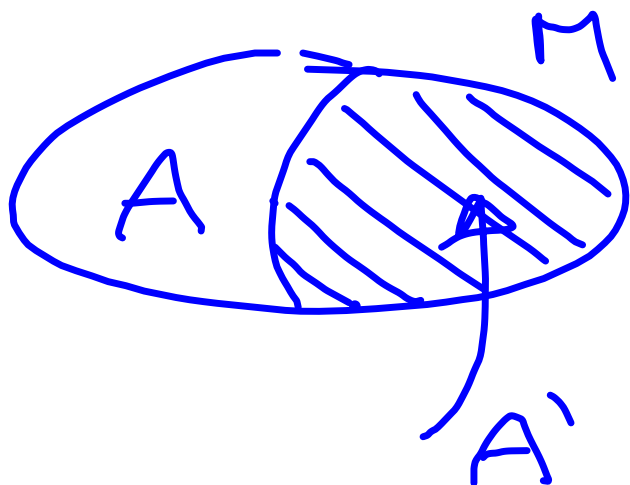
$$M = \{a, b, c\}$$

$$K = 2^M$$

$$M \rightarrow \mathbb{Z}_2$$

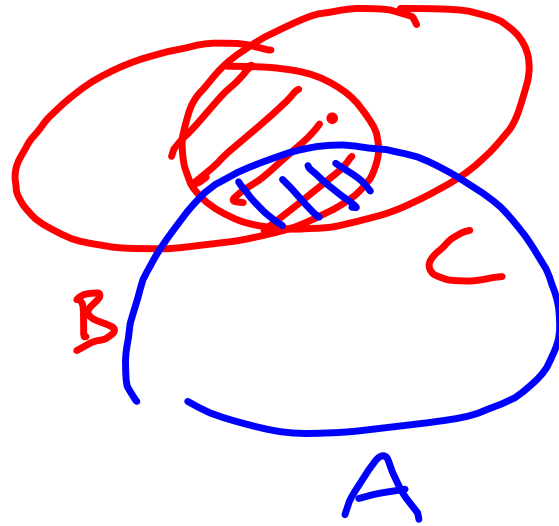
Sjednocení \vee

průnik \wedge



$$M \rightarrow A$$

$$K(\wedge, \vee, ', 0, 1)$$



$$a \cdot (b + c) = ab + ac$$

$$a + (b \cdot c)$$

$$A \cap A' = 0 \quad A \cup A' = 1$$

$$\Rightarrow \begin{aligned} C &= C \cup B = B \cup C \\ B &= B \cup C \end{aligned}$$

$$A, B, C, \dots \in K = \cancel{2^n}$$

elementy
yields

$$(A \vee (B \vee C)) \wedge A' \dots$$

$$\boxed{(\mathbb{Z}_2)^k \rightarrow \mathbb{Z}_2}$$

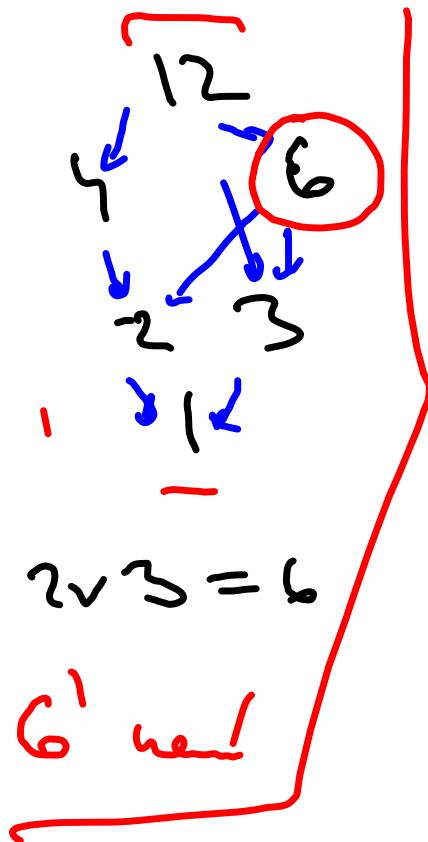
({ logic elements, yields } , \wedge , \vee , ')
is Boolean algebra

$$A = \underbrace{((A \vee B) \wedge C)' \wedge D \dots}$$

$$B = \underbrace{\dots}$$

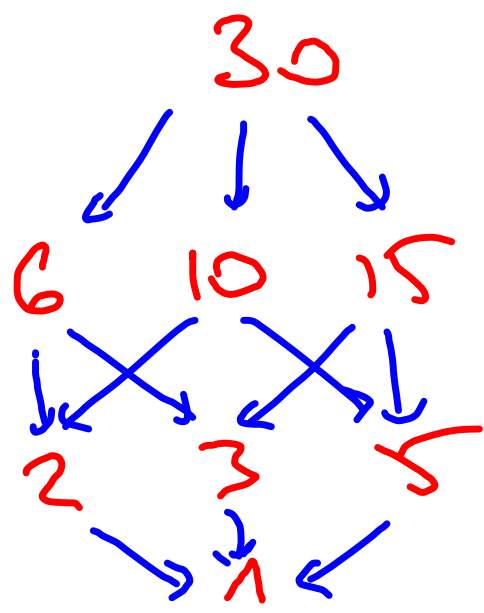
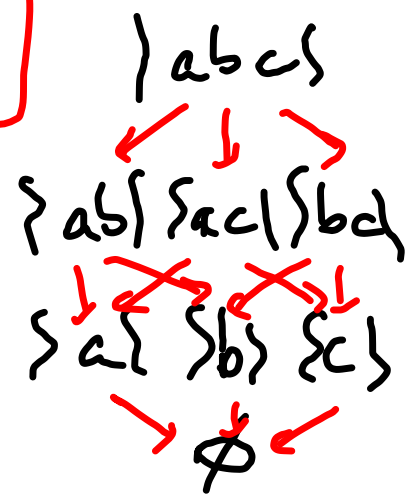
$$A \wedge B = \underbrace{(\quad)} \wedge \underbrace{(\quad)}$$

žněve v rěni; kedy
nemd'



$$12 = 2 \cdot 2 \cdot 3$$

$$30 = 1 \cdot 2 \cdot 3 \cdot 5$$



$$6 \wedge 10 = 2$$

$$2 \vee 3 = 6$$

$$2' = 15$$

$$a < b \text{ def } a | b$$

$$a \leq b \quad b \leq c \Rightarrow a \leq c$$

$(K, \vee, \wedge, ')$

$$a \leq b \Leftrightarrow a \wedge b = a$$

reflexivita: $a \wedge a = a$

antisymetrie: $a \wedge b = a$ a zároveň $a \wedge b = b$
f. $a = b$ ✓

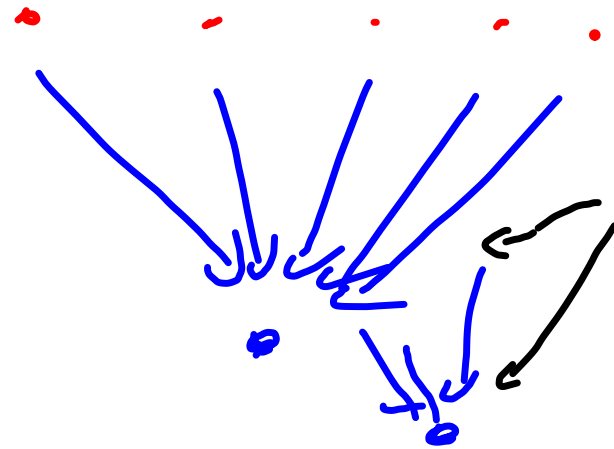
$$A \leq B$$

$$B \leq C$$

$$A \wedge B = A, \quad B \wedge C = B$$

$$A \wedge C = (A \wedge B) \wedge C = A \wedge (B \wedge C) = A \wedge B = A$$

$$A \leq C$$



• nejvíce z šanon
= inf

$$(Z_2)^3 \rightarrow Z_2$$

2^{2^3}

$$\{a^i = 1$$
$$\downarrow$$
$$\emptyset = 0$$

$$0 \wedge 0 = 0$$

$$0 \wedge 1 = 0$$

$$0 \vee 1 = 1$$

$$1 \wedge 1 = 1$$

$$1 \vee 1 = 1$$

$$0 \vee 0 = 0$$

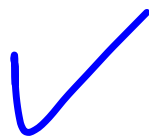
$$0' = 1$$

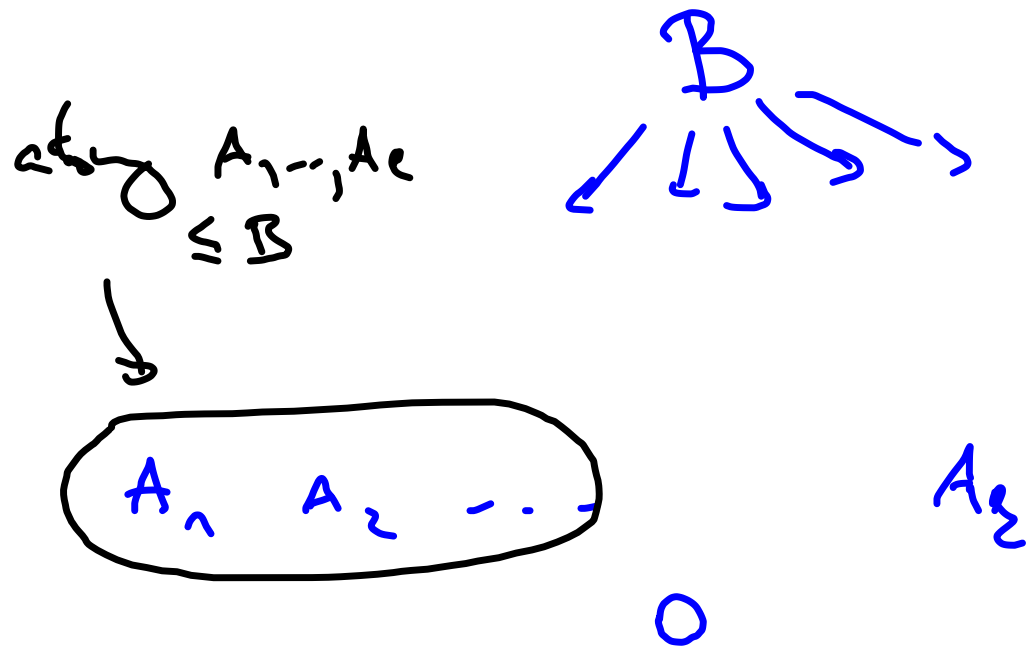
Lemma: $\varphi, \psi : (\mathbb{R})^n \rightarrow \mathbb{R}$

$\varphi \wedge \psi$ je deka funkciy hodnot

$\Rightarrow \varphi \leq \psi$ když φ je 1 vde ten

deka ψ je 1

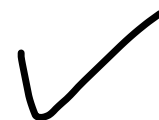




$$Y = A_1 \vee A_2 \vee \dots \vee A_e \leq B$$

$$B \wedge Y' = O \Rightarrow B \leq Y$$

je třeba vědět



$$A \leq B \Leftrightarrow A \cap B = A$$

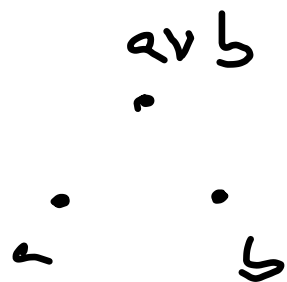
$\downarrow f$

$\downarrow f$

$$f(A) \leq f(B)$$

\Leftrightarrow

$$f(A) \cap f(B) = f(A)$$



f

