

Sist
F6

Om formella bevis med
naturlig deduktion,

ex $A \rightarrow (B \wedge C) \vdash (A \rightarrow B) \wedge (A \rightarrow C)$

1	(1)	$A \rightarrow (B \wedge C)$	premiss
2	(2)	A	antagande
1, 2	(3)	$B \wedge C$	1, 2 $\rightarrow E$
1, 2	(4)	B	3 $\wedge E$
1	(5)	$A \rightarrow B$	2, 4 $\rightarrow I$
1, 2	(6)	C	3 $\wedge E$
1	(7)	$A \rightarrow C$	2, 6 $\rightarrow I$
1	(8)	$(A \rightarrow B) \wedge (A \rightarrow C)$	5, 7 $\wedge I$

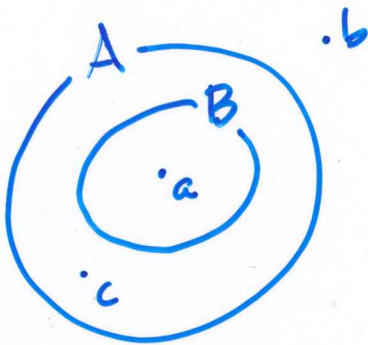
↑ premiss, så ok

Sats:

$p, q, \dots \models r \Leftrightarrow p, q, \dots \vdash r$

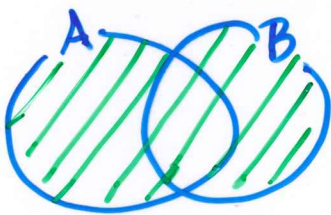
En mängd

$$A = \{a, b, \dots\} = \{x \mid P(x)\}$$

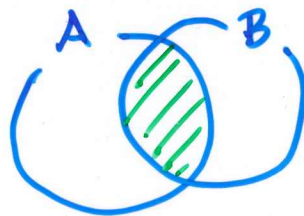


element i A
 $a \in A$, $b \notin A$

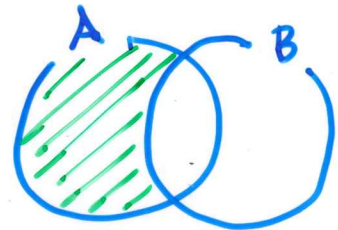
$B \subseteq A$, $B \subset A$
↑ delmängd till A



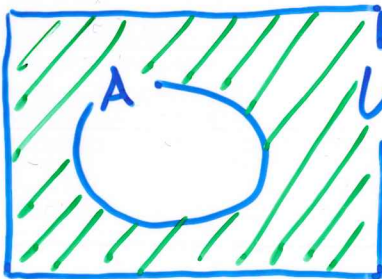
unionen $A \cup B$



snittet $A \cap B$
skärningen



differensen $A - B$



universum

komplementet A^c

$$U^c = \emptyset$$

↑ den tomma
mängden

Venn-diagram

A:s potensmängd $P(A) = \{B \mid B \subseteq A\}$

$|A|$ antalet element i A, A:s kardinalitet

$$|A \cup B| = |A| + |B| - |A \cap B|$$