

S:  $x \succ y$   $x$  is of smaller stature  
than person  $y$ .

L:  $x \prec y$   $x$  is of larger stature  
than person  $y$ .

Ax II:  $x \succ y \rightarrow \sim y \succ x$

Ax III:  $x \prec y \rightarrow \sim y \prec x$

Theorem A:  $x < y \rightarrow \sim x = y$

Theorem I:  $\sim x < x$

①  $x < y$

assume hyp.

$P \rightarrow Q$  not a good first step

$\sim Q \rightarrow \sim P$  if we want to use Th I.

①  $x = y$

②  $\sim x < x$

③  $\sim x < y$

④ rejoice

Assume hyp. of  
contrapositive sentence  
Th I

R.o.R. ① into  
RHS of ②