

$$E_1 \leq E_2 \quad ! (E_2 < E_1)$$

$$E_1 == E_2 \quad (E_1 \leq E_2) \& (E_2 \leq E_1)$$

$$E_1 != E_2 \quad ! (E_1 == E_2)$$

4.3.5.

(a)

$$\frac{\frac{\frac{\vdash_{AR} x > 0 \rightarrow x+1 > 1}{\vdash_{AR} (x > 0) \quad y = x+1 \quad (y > 1)}}{\vdash_{AR} (x > 0) \quad y = x+1 \quad (y > 1)} \quad \frac{\vdash_{AR} y > 1 \rightarrow y > 1}{\vdash_{AR} (x > 0) \quad y = x+1 \quad (y > 1)} \quad \begin{array}{l} \text{Assignment} \\ \text{Implied} \end{array}$$