

stelling 63

$$\begin{aligned}x \wedge r[v:=x] &= x \wedge r[v:=1] \\x \wedge r[v:=x] &= x \wedge r[v:=1] = \langle \text{st} \xrightarrow{y} 2x \rangle \\(x = 1) \wedge r[v:=x] &= (x=1) \wedge r[v:=1]\end{aligned}$$

stelling 64

$\xrightarrow{y}$   $\xrightarrow{x}$   $\omega$   $\text{cijk van st 60 a}$

$$\begin{aligned}x \vee r[v:=x] &= x \vee r[v:=0] \\&= \langle \text{st} \wedge 13 \rangle r[v:=x] \Rightarrow x = x \\&= r[v:=0] \Rightarrow x = x \\&= \langle \text{st} \wedge 4 + \text{st} 3 \rangle r[v:=x] \Rightarrow x = r[v:=0] \Rightarrow x \\&\omega \text{ cijk v. stelling 62}\end{aligned}$$

$$\text{stelling 53A } ((x \supset y) \wedge (y \supset z)) \supset (x \supset z)$$

$$\equiv \langle \text{st 42} \rangle x \supset y \supset y \supset z \supset x \supset z$$

$$\equiv \langle \text{st 48} \rangle x \supset z \supset x \supset z \equiv 1$$

$$\rightarrow \text{intr. van st 48}$$

$$\text{stelling 53A } ((x \supset y) \wedge (y \supset z)) \supset (x \supset z)$$

$$\equiv \langle \text{st 42} \rangle x \supset (y \supset (y \supset (z \supset (x \supset z))))$$

$$\equiv \langle \text{st 41} \rangle x \supset (y \supset (y \supset ((z \supset x) \supset (z \supset z))))$$

$$\equiv \langle \text{st 48} \rangle x \supset (y \supset (y \supset ((z \supset x) \supset 1)))$$

$$\equiv \langle \text{st 49} \rangle x \supset (y \supset (y \supset 1))$$

$$\equiv \langle \text{st 49} \times 3 \rangle 1 \quad \square$$

$$\text{stelling 53B } ((x \equiv y) \wedge (y \supset z)) \supset (x \supset z)$$

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$$\text{stelling 53B } ((x \equiv y) \wedge (y \supset z)) \supset (x \supset z)$$

$$\equiv \langle \text{st 42} \rangle (x \equiv y) \wedge (y \supset z) \wedge x \supset z$$

$$\equiv \langle \text{st 32} \rangle x \wedge y \wedge (y \supset z) \supset z$$

$$\equiv \langle \text{st 43} \rangle x \wedge y \wedge z \supset z$$

$\hookrightarrow$  intr v. stelling 53b

$$\text{stelling 53C } (x \supset y) \wedge (y \equiv z) \supset (x \supset z)$$

$$\equiv \langle \text{st 42} \rangle (x \supset y) \wedge (y \equiv z) \wedge x \supset z$$

$$\equiv \langle \text{st 43} \rangle x \wedge y \wedge (y \equiv z) \supset z$$

$$\equiv \langle \text{st 32} \rangle x \wedge y \wedge z \supset z$$

$\hookrightarrow$  intr v. stelling 53b