

$\frac{\frac{x \in dom \sigma}{\langle x, \sigma \rangle \Downarrow_{exp} \langle \sigma x, \sigma \rangle} \text{VAR} \quad \frac{}{\langle 1, \sigma \rangle \Downarrow_{exp} \langle 1, \sigma \rangle} \text{NVAL}}{\langle x + 1, \sigma \rangle \Downarrow_{exp} \langle \sigma x + 1, \sigma \rangle} \text{PLUS}$			
$\frac{}{\langle x = x + 1, \sigma \rangle \rightsquigarrow \langle skip, [\sigma x : \sigma x + 1] \rangle} \text{ASS}$			
$\frac{\langle x = x + 1; y = x, \sigma \rangle \rightsquigarrow \langle skip; y = x, [\sigma x : \sigma x + 1] \rangle}{\langle x = x + 1; y = x, \sigma \rangle \rightsquigarrow^* \langle skip; y = x, [\sigma x : \sigma x + 1] \rangle} \text{SEQ}_2$		$\frac{}{\langle skip; y = x, [\sigma x : \sigma x + 1] \rangle \rightsquigarrow \langle y = x, [\sigma x : \sigma x + 1] \rangle} \text{SEQ}_1$	
$\frac{}{\langle x = x + 1; y = x, \sigma \rangle \rightsquigarrow^* \langle skip; y = x, [\sigma x : \sigma x + 1] \rangle} \text{RT}_1$		$\frac{}{\langle skip; y = x, [\sigma x : \sigma x + 1] \rangle \rightsquigarrow^* \langle y = x, [\sigma x : \sigma x + 1] \rangle} \text{RT}_1$	
$\frac{}{\langle x = x + 1; y = x, \sigma \rangle \rightsquigarrow^* \langle y = x, [\sigma x : \sigma x + 1] \rangle} \text{RT}_3$		$\frac{\frac{x \in dom [\sigma x : \sigma x + 1]}{\langle x, [\sigma x : \sigma x + 1] \rangle \Downarrow_{exp} \langle skip, [\sigma x : \sigma x + 1] \rangle} \text{VAR}}{\langle y = x, [\sigma x : \sigma x + 1] \rangle \rightsquigarrow \langle skip, [\sigma x : \sigma x + 1, y : \sigma x + 1] \rangle} \text{ASS}$	
		$\frac{}{\langle y = x, [\sigma x : \sigma x + 1] \rangle \rightsquigarrow^* \langle skip, [\sigma x : \sigma x + 1, y : \sigma x + 1] \rangle} \text{RT}_1$	
		$\frac{}{\langle y = x, [\sigma x : \sigma x + 1] \rangle \rightsquigarrow^* \langle skip, [\sigma x : \sigma x + 1, y : \sigma x + 1] \rangle} \text{RT}_3$	
		$\frac{}{\langle x = x + 1; y = x, \sigma \rangle \rightsquigarrow^* \langle skip, [\sigma x : \sigma x + 1, y : \sigma x + 1] \rangle}$	