

1. $a=b$	$\vdash a=b$	.....A
2. $b=c$	$\vdash b=c$	.....A
3.	$\vdash a=a$	.....=I
4. $a=b$	$\vdash a=b \wedge a=a$	..... 1,3, $\wedge$ I
5.	$\vdash (a=b \wedge a=a) \supset b=a$	.....=E
6. $a=b$	$\vdash b=a$	..... 4,5, $\supset$ E
7. $a=b, b=c$	$\vdash b=a \wedge b=c$	..... 2,6, $\wedge$ I
8.	$\vdash (b=a \wedge b=c) \supset a=c$	.....=E
9. $a=b, b=c$	$\vdash a=c$	..... 7,8, $\supset$ E