

Common Mistakes

① $\rightarrow I$

2,3 4. Fa 2,3 $\rightarrow E$

7 7. $\exists x Kx$ A

7 8. $(Fa \rightarrow (\exists x Kx))$ 4,7 $\rightarrow I$

* Fa should be an assumption

② $\forall I$

1 1. Fa A

1 2. $\forall x Fx$ 1. $\forall I$

* Fa depends on itself, which contains the constant 'a', so $\forall I$ can't be applied

③ $\forall E$

1 1. $\neg \forall x Fx$ A

1 2. $\neg Fa$ 1. $\forall E$

* $\neg \forall x Fx$ is $\neg \forall x \neg \neg Fx$, not exactly $\forall x \neg Fx$

④ $\exists E$

1	1. $\exists x Fx$	A
1	2. Fa	1. $\exists E$

* check the rule of $\exists E$

⑤ $\exists E$

2	2. $\exists x (Ax \& \sim Bx) \& \sim Cx$	A
3	3. $((Aa \& \sim Ba) \& \sim Ca)$	A

1.3 10. Ca

7.8, $\forall E$

1.2 11 Ca

2.3, 10 $\exists E$

* line 10 already contains the constant 'a', so we can't apply $\exists E$ as such