

$$\frac{\frac{\frac{\Gamma(p \Rightarrow q) \wedge \neg q^{[1]}}{p \Rightarrow q} [\wedge \text{ elim}] \quad \frac{\Gamma(p \Rightarrow q) \wedge \neg q^{[1]}}{\neg q} [\wedge \text{ elim}]}{\neg p} [\Rightarrow \text{ intro from 1}]}{\frac{\frac{\neg p}{q} [\Rightarrow \text{ elim}]}{\frac{q}{\text{false}}} [\text{contradiction}] \quad \frac{\neg p}{\text{negation intro from 2}}}$$