(1) $\emptyset \vdash (A \wedge A) \supset A$

$$\boxed{(A \wedge A) \supset A, 0\ominus}$$
$$\frac{}{0\mathcal{R}0}$$
$$\boxed{\neg((A \wedge A) \supset A), 0\oplus}$$
$$\boxed{\neg(A \wedge A), 0\ominus}$$
$$A, 0\ominus$$
$$\boxed{A \wedge A, 0\oplus}$$
$$A, 0\oplus$$
$$\otimes$$