

1. Given the following De Morgan's law

$$\neg (p_1 \wedge p_2) \langle \equiv \rangle \neg p_1 \vee \neg p_2$$

prove the general form

$$\neg (p_1 \wedge p_2 \wedge \dots \wedge p_n) \langle \equiv \rangle \neg p_1 \vee \neg p_2 \vee \dots \vee \neg p_n$$

2. Given the rule Conjunction

$$p_1, p_2 \vdash p_1 \wedge p_2$$

prove the general form of this rule

$$p_1, p_2, \dots, p_n \vdash p_1 \wedge p_2 \wedge \dots \wedge p_n$$