

AI GYK

$$[\neg(B \wedge C) \rightarrow (B \wedge \neg A)] \wedge (\neg A \rightarrow \neg B)$$

$$[(B \wedge C) \vee (B \wedge \neg A)] \wedge (A \rightarrow B)$$

$$B \wedge (C \vee \neg A) \wedge (A \vee \neg B) \quad \hookleftarrow$$

$$B \wedge (A \vee \neg B) = (B \wedge A) \vee (B \wedge \neg B)$$

$$\forall x [P(x) \rightarrow Q(x)] \wedge P(a) \rightarrow Q(a)$$

$$\forall x \neg \left[ \left[ \neg P(x) \vee Q(x) \right] \wedge P(a) \right] \vee Q(a)$$

$$\forall x (P(x) \wedge \neg Q(x)) \rightarrow P(a) \vee Q(a)$$

$$\forall x \left[ \neg P(a) \vee Q(a) \vee P(x) \right] \wedge \left[ \neg P(a) \vee Q(a) \vee \neg Q(x) \right]$$

$$\exists x \left[ \exists y (B(x, y) \wedge P(y)) \rightarrow \forall y \exists z (G(x, y, z)) \right]$$

$$\exists x \left[ \neg \exists y (B(x, y) \wedge P(y)) \vee \forall y \exists z (G(x, y, z)) \right]$$

$$\exists x \forall y \neg (B(x, y) \wedge P(y)) \vee \forall y \exists z (G(x, y, z))$$

$$\exists x \exists y_1 \neg B(x, y_1) \vee \neg P(y_1) \vee \forall y_2 \exists z G(x, y_2, z)$$

$$\exists x \forall y_1 \forall y_2 \exists z \neg B(x, y_1) \vee \neg P(y_1) \vee G(x, y_2, z)$$

$$\forall x \forall y_1 \forall y_2 \exists z \neg B(x, y_1) \vee \neg P(y_1) \vee G(x, y_2, z)$$