$$\exists X.\ \exists Y.\ X < Y$$
$$= \exists Y\ c < Y$$
$$= c < d$$
$$= \{\{c < d\}\}$$

$$\forall X.\ \exists Y.\ X < Y$$
$$= \forall X.\ X < f(x)$$
$$= \{\{x < f(x)\}\}$$

$$\forall X. \neg(P(x) \wedge \forall Y.(\neg P(Y) \vee Q(Y)))$$
$$= \forall X.(\neg P(X) \vee \neg\forall Y.(\neg P(Y) \vee Q(Y)))$$
$$= \forall X.(\neg P(X) \vee \exists Y.\neg(\neg P(Y) \vee Q(Y)))$$
$$= \forall X.(\neg P(x) \vee \exists Y.(\neg\neg P(Y) \wedge \neg Q(Y)))$$
$$= \forall X.(\neg P(x) \vee \exists Y.(P(Y) \wedge \neg Q(Y))) \quad \text{Forma Normal Negada}$$
$$= \forall X.\exists Y.(\neg P(x) \vee (P(Y) \wedge \neg Q(Y))) \quad \text{Forma Normal Prenexa}$$
$$= \forall X.(\neg P(x) \vee (P(F(x)) \wedge \neg Q(F(x)))) \quad \text{Forma Normal de Skolem}$$
$$= \forall X.((\neg P(x) \vee P(F(x))) \wedge (\neg P(x) \vee \neg Q(F(x))))$$
$$= \forall X.(\neg P(x) \vee P(F(x))) \wedge \forall X.(\neg P(x) \vee \neg Q(F(x)))$$
$$= \{\{\neg P(x), P(F(x))\}, \{\neg P(x), \neg Q(F(x))\}\} \quad \text{Forma Clausal}$$

$$\exists X.\ \forall Y.\ (P(x,y) \land Q(X) \land \neg R(Y))$$

$$= \forall Y.\ (P(c,y) \land Q(C) \land \neg R(Y))$$

$$= \forall Y.\ P(c,y) \land \forall Y.\ Q(c) \land \forall Y.\ \neg R(Y)$$

$$= \{ \{P(c,y)\},\ \{Q(c)\},\ \{\neg R(y)\} \}$$

$$\forall X.\ (P(x) \land \exists Y.\ (Q(Y) \lor \forall Z.\ \exists W.\ (P(z) \land \neg Q(w))))$$

$$= \forall X.\ \exists Y.\ (P(x) \land (Q(Y) \lor \forall Z \exists W.\ (P(z) \land \neg Q(w))))$$

$$= \forall X.\ \exists Y.\ \forall Z.\ (P(x) \land (Q(Y) \lor \exists W.\ (P(z) \land \neg Q(w))))$$

$$= \forall X.\ \exists Y.\ \forall Z.\ \exists W.\ (P(x) \land (Q(Y) \lor (P(z) \land \neg Q(w))))$$

$$= \forall X.\ \forall Z.\ \exists W.\ (P(x) \land (Q(f(x)) \lor (P(z) \land \neg Q(w))))$$

$$= \forall X.\ \forall Z.\ (P(x) \land (Q(f(x)) \lor (P(z) \land \neg Q(g(x,z)))))$$

$$= \forall X.\ \forall Z.\ (P(x) \land (Q(f(x)) \lor P(z)) \land (Q(f(x)) \lor \neg Q(g(x,z))))$$

$$= \forall X.\ \forall Z.\ P(x) \land \forall X.\ \forall Z.\ (Q(f(x)) \lor P(z)) \land \forall X.\ \forall Z.\ (Q(f(x)) \lor \neg Q(g(x,z)))$$

$$= \{\{P(x)\},\ \{Q(f(x)),\ P(z)\},\ \{Q(f(x)),\ \neg Q(g(x,z))\}\}$$