(c) $\neg \forall x \exists y (P(x,y) \rightarrow \neg P(y,x))$

$\equiv \exists x \forall y (\neg (P(x,y) \rightarrow \neg P(y,x)))$ de Morgan's Law

$\equiv \exists x \forall y (\neg (\neg P(x,y) \vee \neg P(y,x)))$ Law of implication

$\equiv \exists x \forall y (P(x,y) \wedge P(y,x))$ de Morgan's Law

There exists an activity x, which is more fun than any activities, and all activities are more fun than x.

(d) $\neg \forall x \forall y ((P(x,y) \oplus Q(y)) \rightarrow \neg \exists z Q(z))$

$\equiv \neg \forall x \forall y (\neg (P(x,y) \oplus Q(y)) \vee \neg \exists z Q(z))$ Law of implication

$\equiv \exists x \exists y \neg (\neg (P(x,y) \oplus Q(y)) \vee \neg \exists z Q(z))$ de Morgan's Law

$\equiv \exists x \exists y ((P(x,y) \oplus Q(y)) \wedge \exists z Q(z))$

There exist a course x and a course y. x is a pre-requisite for course y that I'm not taking, or x is not a pre-requisite for y that I'm currently taking, meanwhile there exists a course z that I'm taking