Negation, again

Negate: $(x \to y) \wedge \neg x$
Second Solution: We begin by simplifying the expression above before negating it. Note that

$$x \to y \equiv \neg x \vee y$$

Hence

$$(x \to y) \wedge \neg x$$

$$\equiv (\neg x \vee y) \wedge \neg x$$

$$\equiv (\neg x \wedge \neg x) \vee (y \wedge \neg x)$$

$$\equiv \neg x \vee (y \wedge \neg x)$$

$$\equiv \neg x$$

Therefore,

$$\neg[(x \to y) \wedge \neg x] \equiv \neg\neg x \equiv x$$