PBE of Gift Game and Gift Game 2

1. Gift Game ($p < \frac{1}{2}$)

		player 2 A	R
	$N^F N^E$	$0, 0^{**}$	$0^{**}, 0^{**}$
player 1	$N^F G^E$	$1 - p, p - 1$	$p - 1, 0^{**}$
	$G^F N^E$	p, p^{**}	$-p, 0$
	$G^F G^E$	$1^{**}, 2p - 1$	$-1, 0^{**}$

$(N^F N^E, R)$ is a BNE. Letting q denote $pr(F|gift)$, any belief is consistent. R is seq. rational if $q \leq \frac{1}{2}$ (look at the game tree to compute this).

2. Gift Game ($p \geq \frac{1}{2}$)

		player 2 A	R
player 1	$N^F N^E$	$0, 0^*$	$0^*, 0^*$
	$N^F G^E$	$1 - p, p - 1$	$p - 1, 0^*$
	$G^F N^E$	p, p^*	$-p, 0$
	$G^F G^E$	$1^*, 2p - 1^*$	$-1, 0$

$(N^F N^E, R)$ is a BNE. Letting q denote $pr(F|gift)$, any belief is consistent. R is seq. rational if $q \leq \frac{1}{2}$.

$(G^F G^E, A)$ is a BNE. The only consistent belief is $q = p$ (look at the game tree). Strategies are seq. rational.

3. Gift Game 2

		player 2 A	R
player 1	$N^F N^E$	$0, 0^*$	$0^*, 0^*$
	$N^F G^E$	$1-p, 0^*$	$p-1, p-1$
	$G^F N^E$	p, p^*	$-p, 0$
	$G^F G^E$	$1^*, p^*$	$-1, p-1$

$(N^F N^E, R)$ is a BNE. Letting q denote $pr(F|gift)$, any belief is consistent. R is never seq. rational (look at the game tree). Not consistent with PBE.

$(G^F G^E, A)$ is a BNE. The only consistent belief is $q = p$ (look at the game tree). Strategies are seq. rational.