Activity: Shopping
Econ 305

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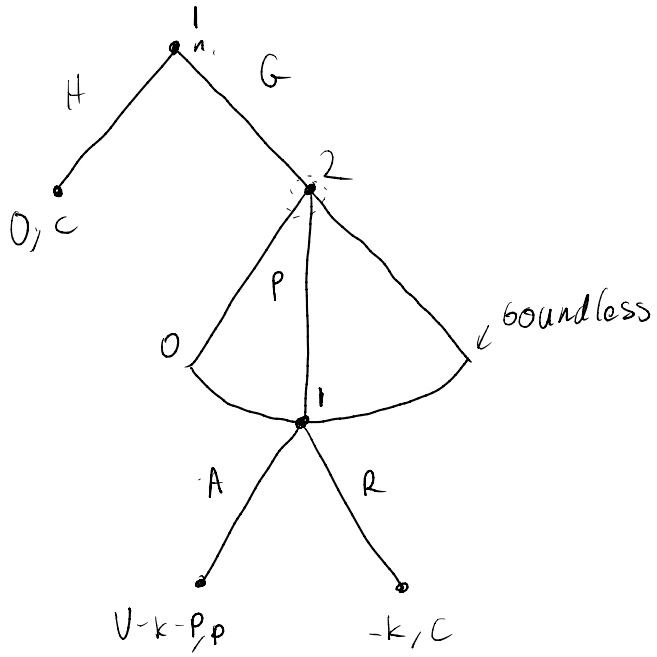
- A single good is owned by a seller who values it at $c > 0$
- A single buyer, with a small transportation cost $k > 0$ to get to and from the seller's store, values the good at $v > c + k$
- Stage 1: The buyer decides whether to stay home (H) and get payoff 0 or go to the store (G)
- Stage 2: Upon buyer arriving at store, the seller makes a take-it-or-leave-it price offer, $p \geq 0$
- Stage 3: The buyer accepts the offer to pay p (A), or rejects the offer (R)

Draw the Game Tree and Find the SPE

Hint: In the SPE player 2 will accept offers that generate indifference.



Stage 2:

$S_1(p) = \begin{cases} A, & p \leq v \\ R, & p > v \end{cases}$

Stage 1:

$S_2 = v$

Stage 0:

$U_1(H) = 0$

$U_1(G) = v - k - S_2$

$= -k$

$v - k - p \geq -k$

$p \leq v$

∴

SPE =

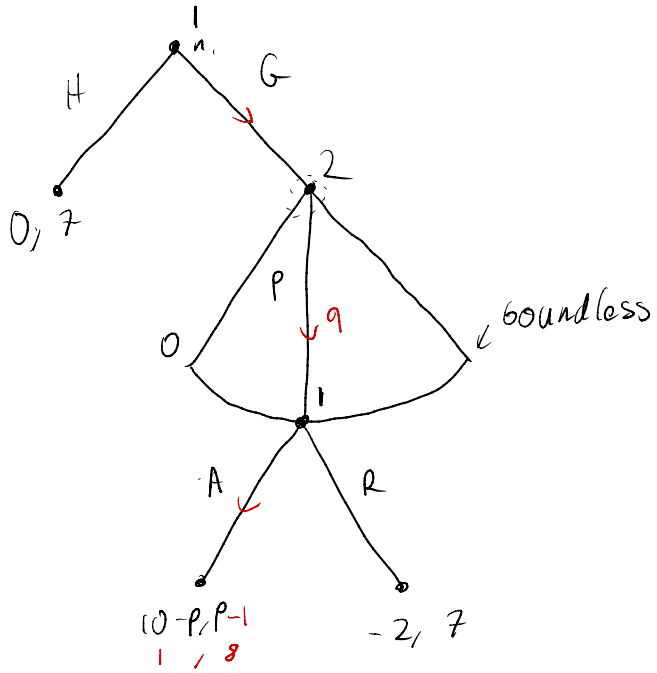
S_1: H, {A ($p \leq v$), R ($p > v$)}

S_2: $p = v$

Bonus: Junk-Mail Advertising

For concreteness, assume that $v = \$12, k = \$2$, and $c = \$7$.

Assume that before the game is played, the seller can, at a cost of \$1 send the buyer a postcard that commits the seller to a certain price of \$9 at which the buyer can buy the good. Would the seller choose to do so?



Everyone is better off,
Transaction takes place