1. Decide among you who will be player 1 and who will be player 2

2. The two players both start with the same "bankroll" (how much money you have to spend) of $20.

3. Player 1 goes first and must bid some number of dollars to buy the stakes, which is $10.

4. Player 2 may either bid some larger sum of money to buy the $10, or may pass (in which case the $10 goes to player 1).

5. Bidding proceeds until someone passes or until someone's bankroll is exhausted.

6. High bidder pays whatever he/she bid, and receives the $10.

7. *Low bidder pays whatever he/she last bid and receives nothing!*

Juan and Tootsie each have \$20 to spend. (These are their **bankrolls**). They are both trying to buy \$10 in an auction. (The \$10 is called the **stakes**).

Remember: The low bidder has to pay his/her last bid.

One possible scenario:

	Player 1 (Juan)	Player 2 (Tootsie)
1st turn	Juan bids $1.	Not about to let $10 slip out of her hands, Tootsie decides to bid. In an effort to outbid Juan, Tootsie bids $4.
2nd turn	Juan can still make money. That's better than paying $1 for nothing! He decides to bid $ 7. If he outbids Tootsie, he'll make $3.	Tootsie doesn't want to lose the $4 she bid. If she bids more, she still has a chance of making something. Tootsie decides to up her bid to $8. Making $2 isn't great, but it's better than losing $4.

	Player 1 (Juan)	Player 2 (Tootsie)
3rd turn	Juan realizes that if he bids $9, Tootsie will likely respond with $10. So he decides to bid $10. Making nothing is better than losing $9.	Tootsie will lose money no matter what. But with a bid of $15, she has a chance of losing $5, rather than $8, and maybe it's high enough to make Juan quit.
4th turn	If Juan doesn't bid he's out $10. He wants to lose less than that. He decides to bid $19.	If Tootsie doesn't outbid Juan, she'll lose $15. If she does bid her full $20, she'll be the high bidder, and only lose $10. Tootsie bids $20.

The bidding is now over, because Juan can not outbid Tootsie.

End result: Tootsie was the high bidder. She paid $20 to get $10, so has a net loss of $10. Juan was the low bidder. He paid $19 and got nothing, for a net loss of $19.

If Tootsie bids $20, then Juan can not respond and will neither make nor lose money. If Tootsie bids $10, then Juan can either pass, and neither make nor lose money, or he can bid $20, which will end the auction. Paying $20 to buy $20 will result in no net gain or loss. So no matter what Tootsie does, and no matter how Juan responds, Juan will have the same result – no net gain or loss. Tootsie could easily figure this out before ever making her first bid. Therefore, Tootsie would need to have some idea of what Juan's motivations are. Is Juan only trying to make some money, or lose less? Or is he out for revenge, after having lost $19 in the last round?

If she knows he's out for revenge, then since she has no choice but to bid, she'll bid the full $20, thus ending the auction.

If she knows Juan's not angry, she'll bid the minimum $10. Because Juan's not out to punish her, he'll just pass, and she'll make $10.

We "fix" the money units No one can break the units	\$ 10 Can't spend \$1
Auction the "stakes" (money) s denotes stakes, in units	stakes = \$20 $s = 2$
Two players bid	P1 and P2
Each has same amt of money b denotes bankroll, in units	bankroll=\$20 $b = 2$
P1 bids first; can not pass	
P2 may bid higher or pass	
Bidding proceeds 'til someone passes or bankroll is exhausted	
High bidder pays what he/she bid Low bidder pays what he/she bid	Receives the stakes Receives nothing