PROBLEM 10

North
♠ 7 4 3 2
♥ A J 9 3
♦ A K 7 6
♣ A

South
♠ K Q 6
♥ K Q 8 7 2
♦ 8 5 2
♣ 4 3

DEALER NORTH VULN: N-S

S	W	N	E
		1♦	Pass
1♥	Pass	3♥	Dbl.
Rdbl.	4♣	Pass	5♣
5♥	All Pass		

WEST LEADS ♠8

East wins the lead with the ace and returns the nine of spades, West following with the five.

Vigorous competitive bidding by East reveals that he surely holds the black suits and his failure to enter the auction on the first round can be explained by shortness in hearts. In all likelihood, his distribution is 4-1-4-4 or 4-0-4-5 (4-0-5-4 most improbable, for in that case West would have led his singleton diamond).

If East has a heart, declarer can easily count eleven tricks: two spades, six hearts (five in hand and one ruff in dummy), two diamonds and one club. (He can even score an overtrick on a squeeze, as we shall see shortly.) However, if East is void in hearts, a likely distribution to reckon with, the South hand is short of entries to ruff a club and then draw trumps.

Declarer could abandon the club ruff and bank on a spade-diamond squeeze against East instead; namely, a standard criss-cross squeeze, requiring an entry in each hand, in the following four-card position:

♠ 7 4
♥ ---
♦ A 7
♣ ---

♠ --- ♠ J 10 Position X
♥ --- ♥ ---
♦ X ♦ X X
♣ X X X ♣ ---

♠ Q
♥ 2
♦ 8 5
♣ ---

South plays a trump and discards dummy's small diamond.

To reach the above position, a trick has to be given up first to rectify the count, and it seems like the only suit available for that is clubs. (Of course, four rounds of trumps have to be drawn beforehand to prevent the defense from scoring a spade ruff.) This is the hypothetical position in which South might attempt to give up the club trick:

	♠ 7 4 ♥ --- ♦ A K 7 6 ♣ ---	
♠ --- ♥ --- ♦ X X ♣ X X X X		♠ J 10 ♥ --- ♦ X X X ♣ X---
	♠ Q ♥ 2 ♦ 8 5 2 ♣ 4	

But the defense can easily counter South's plans by returning either a diamond or a spade to break up communications for the criss-cross squeeze.

Yet there is another manoeuvre that enables declarer to reach the winning four-card ending. It involves **giving up a trick in the trump suit!**

SOLUTION

At trick three, South crosses to dummy's ace of clubs to lead the **three of hearts**, and when East shows out, he **inserts the seven**. West must win; otherwise declarer can ruff a club, pull trumps and end up making twelve tricks on the squeeze mentioned above.

On lead with the ten of hearts, West switches to a diamond (best defense) to come down to the following position:

	♠ 7 4 ♥ A J 9 ♦ A K 7 6 ♣ ---	
♠ --- ♥ 6 5 4 ♦ X X ♣ X X X X		♠ J 10 ♥ --- ♦ X X X ♣ X X X
	♠ Q ♥ K Q 8 2 ♦ 8 5 2 ♣ 4	

South overtakes dummy's nine (or jack) of hearts, ruffs a club with the ace and comes back to hand overtaking dummy's last heart in order to draw the remaining trump with the eight and reach the above-mentioned position X.

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The full deal:

	♠ 7 4 3 2 ♥ A J 9 3 ♦ A K 7 6 ♣ A	
♠ 8 5 ♥ 10 6 5 4 ♦ 10 4 ♣ K 10 9 6 5		♠ A J 10 9 ♥ --- ♦ Q J 9 3 ♣ Q J 8 7 2
	♠ K Q 6 ♥ K Q 8 7 2 ♦ 8 5 2 ♣ 4 3	

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All other lines of play are bound to fail. For example:

a) At trick four, North leads the *nine of hearts* (instead of the three) and lets it ride.
West *ducks* and this is the *losing* position:

	♠ 7 4 ♥ A J 3 ♦ A K 7 6 ♣ ---	
♠ --- ♥ 10 6 5 ♦ 10 5 ♣ K 10 9 6		♠ J 10 ♥ --- ♦ Q J 9 3 ♣ Q J 8
	♠ Q ♥ K Q 8 7 ♦ 8 5 2 ♣ 4	North to lead

b) At trick four, declarer comes to hand by overtaking dummy's nine of hearts with the queen, ruffs a club with the ace and now plays the three of hearts and puts in the seven. Again West ducks, to reach another *losing* position:

	♠ 7 4 ♥ --- ♦ A 7 6 ♣ ---	
♠ --- ♥ --- ♦ X ♣ X X X X		♠ J 10 ♥ --- ♦ X X ♣ X---
	♠ Q ♥ 2 ♦ 8 5 ♣ 4	South to lead

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N.B. Careful analysis shows that if East ducks the opening spade lead, the contract can no longer be made. His slight mistake is understandable (for all he knows, West's eight is a singleton) but that is no reason not to take advantage of it.

PROBLEM 11

North
♠ A Q 6
♥ 7 4 2
♦ 9 7 3 2
♣ J 6 4

South
♠ 7 5 4 3 2
♥ K 3
♦ A K
♣ A 10 3 2

DEALER WEST VULN: NONE

S	W	N	E
	1♦	Pass	1♥
Dbl.	1NT	Dbl.	2♥
2♠	Pass	4♠	All Pass

WEST LEADS ♥Q

East ducks the opening lead, won by the king of hearts.

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In order to win the contract, declarer must find not only a 3-2 trump break but also the clubs lying in such a way that he will lose only one trick in the suit. In other words, East has to hold a doubleton honor. (The other honor is obviously held by West to justify his opening bid, missing a club honor in addition to the ace of hearts.)

Declarer's plan is to cross to dummy with a spade finesse, lead a small club, put in the ten, win West's return[1], cash the second high trump, the ace of clubs dropping East's honor, the jack of clubs, return to hand with a diamond and ruff the fourth club with dummy's small trump. Some care must be exercised with the timing: the second trump must not be drawn before the club ruff is set up as the defense would remove dummy's third trump.

The three trumps must be held by *West*; otherwise declarer will have no winning play: either he draws only one round of trumps and has to concede a killing heart overruff to West with his *short trumps*, or he draws two rounds before playing on clubs, in which case he cannot prevent East from getting the lead with the ace of hearts and pulling a third round of trumps.

It follows from the above that the winning East-West layout has to be:
West: ♠KXX ♥QX ♦QXXX ♣KXXX East: ♠XX ♥AXXXXX ♦XXX ♣QX
(The place of the three jacks is uncertain but irrelevant.)

However, the best-laid plans can go up in smoke simply because **the defense refuses to cooperate!** East has a counter-stroke up his sleeve: **when the small club is led from dummy, he inserts the queen!**

South must win the trick and lead a second trump to avoid a club ruff by East, and can no longer prevent West from pulling the third trump.

To protect himself against this counter-stroke, **declarer's first task at trick two is to fire back a second heart to cut communications between the defenders.** East wins and, realizing that a heart overruff will do no good, switches to a diamond.
South leads a spade to the queen, followed by a small club on which East, of course, puts in the queen, won by the ace, to reach the following position:

	♠ A 6 ♥ 7 ♦ 9 7 3 ♣ J 6	Position X
♠ K X ♥ --- ♦ Q X X ♣ K X X		♠ X ♥ X X X X ♦ X X ♣ X
	♠ 7 5 4 3 ♥ --- ♦ K ♣ 10 3 2	South to lead

Declarer's first idea (the wrong one, as we shall see shortly) is to unblock the king of diamonds, cross to dummy with the ace of spades, ruff a diamond in hand to come down to this five-card position:

	♠ 6 ♥ 7 ♦ 9 ♣ J 6	
♠ K ♥ --- ♦ Q ♣ K X X		♠ --- ♥ X X X X ♦ --- ♣ X
	♠ 7 5 ♥ --- ♦ --- ♣ 10 3 2	South to lead

South leads a small club (expecting West to play low), intending to win with the jack, ruff a diamond and throw West in with a spade for a club endplay. But West goes up with the king of clubs second hand - *the defense's second counter-stroke*

- cashes the king of spades and forces South to ruff a diamond. Declarer will be locked in dummy with the jack of clubs and will have to concede a heart trick.

SOLUTION

Let us go back to Position X.
At trick six, South reaches dummy with a spade and, instead of ruffing a diamond, **ruffs a heart in hand and West is faced with an insoluble dilemma:**

a) If he overruffs, he shortens his trumps and the fourth club will be ruffed in dummy.

b) If he discards a club, declarer can set up the fourth club without ruffing.

c) If he discards a diamond, the second counter-stroke described above no longer works. We are down to this position:

	♠ 6 ♥ --- ♦ 9 7 ♣ J 6	
♠ K ♥ --- ♦ Q ♣ K X X		♠ --- ♥ X X X ♦ X ♣ X
	♠ 7 5 ♥ --- ♦ --- ♣ 10 3 2	South to lead

South leads a low club.

If West goes up with the king to cash the king of spades and force declarer's last trump with a diamond, he sets up a diamond trick in dummy.

If he fails to go up with the king, the jack wins in dummy, a diamond is ruffed in hand and West is thrown in with a spade and has to concede a club trick.

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When South ruffs a heart at trick seven, West is subjected to a three-suit squeeze (diamonds, clubs and *trumps*) called "Backwash" as the player squeezed is behind the opponent who ruffs (whereas a "Knockout" squeeze refers to a situation in which the player squeezed is in front of the ruffing opponent).

The full deal:

	♠ A Q 6 ♥ 7 4 2 ♦ 9 7 3 2 ♣ J 6 4	
♠ K J 9 ♥ Q 10 ♦ Q J 6 5 ♣ K 9 8 7		♠ 10 8 ♥ A J 9 8 6 5 ♦ 10 8 4 ♣ Q 5
	♠ 7 5 4 3 2 ♥ K 3 ♦ A K ♣ A 10 3 2	

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If a clever declarer, but too clever for his own good, trying to provoke the above-mentioned Backwash squeeze, ruffs the heart too early (that is, at trick five, instead of playing a club from dummy), he is bound to go down.
West discards a diamond, to reach this position:

	♠ A 6 ♥ --- ♦ 9 7 3 ♣ J 6 4	
♠ K J ♥ --- ♦ Q J ♣ K 9 8 7		♠ 10 ♥ A 9 6 ♦ 10 8 ♣ Q 5
	♠ 7 5 4 ♥ --- ♦ A ♣ A 10 3 2	

South can reasonably follow one of two lines of play:

a) go to dummy to play a club.
But this time East does not insert the queen and West can draw the third trump.

b) unblock the diamond honor, cross to dummy with the ace of spades, ruff a diamond setting up dummy's nine, and exit with a trump. This is the position:

	♠ --- ♥ --- ♦ 9 ♣ J 6 4	
♠ --- ♥ --- ♦ --- ♣ K 9 8 7		♠ --- ♥ A 9 ♦ --- ♣ Q 5
	♠ --- ♥ --- ♦ --- ♣ A 10 3 2	

West leads the nine of clubs, but East refuses to play the queen. South wins with the ten, but has to concede two more tricks in the suit for down one.

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[1] Probably a heart. Now if East continues with a third heart, West can only lose by overruffing; for he is then reduced to fewer trumps than dummy and cannot prevent declarer from ruffing the fourth club. This is a recurrent theme throughout the analysis.

PROBLEM 12

North
♠ A 3 2
♥ 3 2
♦ A 4 3 2
♣ A K Q 2

South
♠ K 4
♥ A K 4
♦ K Q 10 9
♣ 10 9 4 3

DEALER SOUTH VULN: E-W

S	W	N	E
1NT	Pass	6NT	All Pass

WEST LEADS ♠ 10

Barring some extremely farfetched combination, declarer needs four tricks in both minor suits to make his contract.

In the event that one or both minors should break badly, a JXXX holding in clubs can be picked up only in the West hand, whereas JXXX in diamonds can be picked up in either defender's hand. Therefore, standard technique suggests that

the suit playable only one way (clubs) has to be tested first. As for the diamond suit, the decision should be postponed as long as possible, until sufficient information is available about the distribution.

South wins the opening spade lead in hand and plays a club to dummy; **East shows out!**

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Now South will go about gathering information about the opponents' distribution in order to decide eventually which way to play the diamonds. **This plan calls for giving up a trick in one of the majors.**

But before doing so, declarer must cash three club tricks[1] and carefully watch East's discards[2]. He must handle the clubs in such a way that the fourth club will provide an entry in dummy; for, if the trick that has to be conceded is in *spades*, North will need an entry to cash the ace. (The only other entry is the ace of diamonds, but, as we have mentioned, this must not be touched for the time being.)

At trick three, South comes back to hand with a diamond honor[3] and leads the ten of clubs, covered by the jack and won in dummy, then another club to South's nine, to reach the following position:

♠ A 3
♥ 3 2
♦ A 4 3
♣ A

♠ 4
♥ A K 4
♦ Q 10 9
♣ 4

East had to make three discards on the clubs.

Now is the time to concede a trick in one of the majors, **depending on those discards.**

If declarer makes the right choice, his prospect of winning becomes a mathematical certainty.

The key question is: in which major should the trick be conceded?

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Let us suppose that East discarded two hearts and one spade when clubs were played.

Now let us visualize some of the possible situations:

A. At trick six, declarer **concedes a trick in hearts.**
On regaining the lead, he cashes the remaining top major-suit honors, observing carefully the way West followed suit, or failed to follow, to the five major-suit tricks played.

West followed with 2 spades, 2 hearts (showing out on the third round) and 1 club.
West's known cards (outside of diamonds): 5 clubs, 2 spades, 2 hearts = 9. **Thus, West has room for ♦JXXX.**
In this case, East's known cards are 6 hearts and 3 spades = 9. **Since only 9 of East's cards can be accounted for, East, too, has room for ♦JXXX.**

B. At trick six, declarer **concedes a trick in spades.**
(Again, on regaining the lead he cashes the top major-suit honors.)

1. West followed with 3 spades, 1 heart and 1 club.
West's known cards (outside of diamonds): 5 clubs, 3 spades, 1 heart = 9. West could have room for ♦JXXX.
In this case, East would have 7 hearts, at least 3 spades = 10, so if anyone has ♦JXXX, it must be West.

2. West followed with 3 hearts, 1 spade and 1 club.
West's known cards: 5 clubs, 3 hearts, 1 spade = 9. West has room for ♦JXXX.
In this case, East would hold 7 spades and 4 hearts = 11. Obviously, East cannot have ♦JXXX.

3. West followed with 2 spades, 2 hearts and 1 club.
West's known cards: 5 clubs, 2 spades, 2 hearts = 9. West has room for ♦JXXX.
In this case, East is marked with 6 spades and 4 hearts = 10. Once again, 10 of East's cards are accounted for, so if anyone has ♦JXXX, it can only be West.

Conclusion:

In case A, where declarer conceded the trick in hearts, the suit in which East discarded the greater number of cards, he can encounter a situation -

namely, example A above - where he will have no way of knowing which defender might hold ♦JXXX.

In case B, where declarer conceded the trick in spades, the suit in which East discarded the smaller number of cards, the position of a possible holding of ♦JXXX can always be known with certainty.

Therefore, declarer must concede the trick in the suit in which East discarded the smaller number of cards when clubs were played.

Supposing that East discarded two spades and one heart, (instead of two hearts and one spade as in the above example), the same reasoning applies and the same conclusion is reached; namely that the trick declarer must concede will be in hearts, the suit in which East discarded the smaller number of cards.

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<u>The play on the actual hand:</u>

The opening lead is won with the king of spades, and a club is led to dummy, East throwing a spade. South comes to hand with a high diamond honor and leads the ten of clubs, covered by the jack and won in dummy, East discarding a heart.
Another club is led to South's nine while East throws another heart.

East has thrown two hearts and one spade, so that *South concedes a trick in spades*, *the suit in which East discarded the smaller number cards.*

The defense switches to a heart. Declarer cashes the ace and king of hearts, crosses to dummy with the ace of clubs (East throws a spade) and cashes the ace of spades, on which West parts with his thirteenth club.

Cards known in the West hand: 2 spades, 2 hearts, 5 clubs = 9.
Cards known in the East hand: 6 spades and 4 hearts = 10.
Therefore, a possible JXXX of diamonds can be held only by West. South cashes the remaining high diamond honor (East shows out) and picks up West's jack.

The full deal:

	♠ A 3 2 ♥ 3 2 ♦ A 4 3 2 ♣ A K Q 2	
♠ 10 9 ♥ Q 8 ♦ J 8 7 5 ♣ J 8 7 6 5		♠ Q J 8 7 6 5 ♥ J 10 9 7 6 5 ♦ 6 ♣ ---
	♠ K 4 ♥ A K 4 ♦ K Q 10 9 ♣ 10 9 4 3	

[1]Three rounds but not four, since declarer, with no sure way of keeping West off the lead when conceding his trick, cannot afford to set up West's thirteenth club.

[2]If declarer gives up a trick *before* playing three rounds of clubs, he is not certain to win. Let's suppose that on our deal he concedes a spade trick and plays four rounds of clubs *afterwards*. East will discard three spades and one heart and then only nine of his original cards will be known (6 spades and 3 hearts).

[3]A heart will do as well, but in practice, just about every declarer will naturally choose to play diamonds, if only in the hope that a defender might kindly show out right away and solve all his problems.