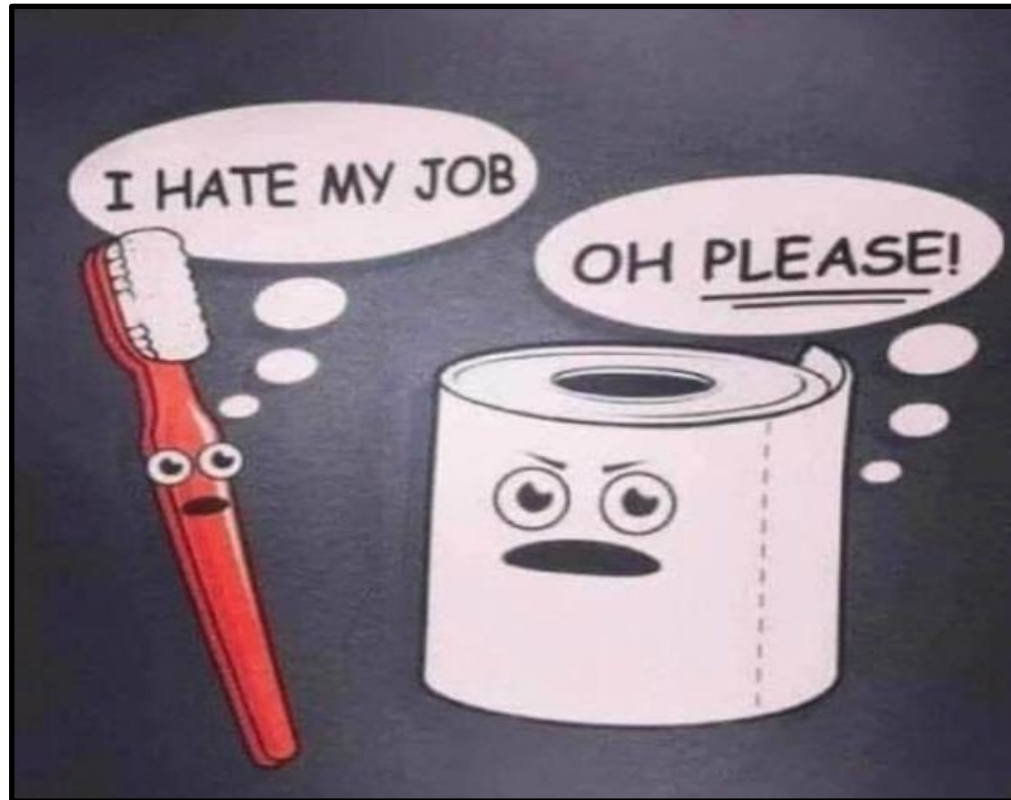# Law of Total Tricks

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Time for a Joke

Two Irish mechanics, Paddy and Sean, are at a US airport trying to re-fuel a new type of jet airplane. As they are reading its manual, they find a warning that says, "Don't drink the jet fuel!"

Puzzled, they check the jet's fuel. It smells just like whisky! Being curious, they try a drop. It smells and tastes exactly like whisky! So, they have a pint each, before returning to fueling the plane.

A few hours later, Paddy is at home when suddenly, he feels wind building up in his intestines. The phone rings, and he answers it.

"Are you feeling like you have to pass gas?" Sean asks him.

"Yeah," says Paddy. "I guess we should've drunk that fuel!"

"Well," says Sean, "let it out real slow. I'm calling from Australia!"

Facts About Fits

1

YOU:	♠ 4	♥ 3	♦ 3	♣ 3
PARTNER:	2	3	3	5
FIT:	6	6	6	8
	One 8-card fit			

26

13+13 = 26   Cards
26/4 = 6.5   Avg per suit

YOU:	♠ 4	♥ 3	♦ 3	♣ 3
PARTNER:	2	3	4	4
FIT:	6	6	7	7
	Two 7-card fits			

26

YOU:	♠ 5	♥ 5	♦ 2	♣ 1
PARTNER:	1	1	4	7
FIT:	6	6	6	8
	One 8-card fit			

26

Fact #1: You are guaranteed at least two 7-card fits or one 8+ - card fit on every deal.

2

LHO:	♠ 4	♥ 3	♦ 3	♣ 3
RHO:	4	3	3	3
FIT:	8	6	6	6
	One 8-card fit			

26

Rare.

YOU:	♠ 3	♥ 4	♦ 3	♣ 3
PARTNER:	2	3	3	5
FIT:	5	7	7	7
	Three 7-card fits			

26

Fact #2: If the opponents have an 8-card fit, there is only one rare mathematical combination where you won't have an 8-card fit as well (above), but then you will have three 7-card fits.

More Facts About Fits

3

	♠	♥	♦	♣	
LHO:	4	3	3	3	
RHO:	5	3	3	2	
FIT:	9	6	6	5	26
	One 9-card fit				

Fact #3: If the opponents have a 9-card fit, your side MUST have at least one 8+-card fit (in this case, in clubs).

4

	♠	♥	♦	♣	
LHO:	4	3	3	3	
RHO:	6	3	3	1	
FIT:	10	6	6	4	26
	One 10-card fit				

	♠	♥	♦	♣	
LHO:	4	3	3	3	
RHO:	6	2	2	3	
FIT:	10	5	5	6	26
	One 10-card fit				

Fact #4: If the opponents have a 10-card fit, your side MUST have at least one 9+-card fit (higher chart) or two 8-card fits (lower chart).

5

	♠	♥	♦	♣	
LHO:	4	5	2	2	
RHO:	4	3	3	3	
FIT:	8	8	5	5	26
	Two 8-card fits				

Fact #5: If the opponents have two 8-card fits, your side MUST have a 9+-card fit or two 8-card fits also.
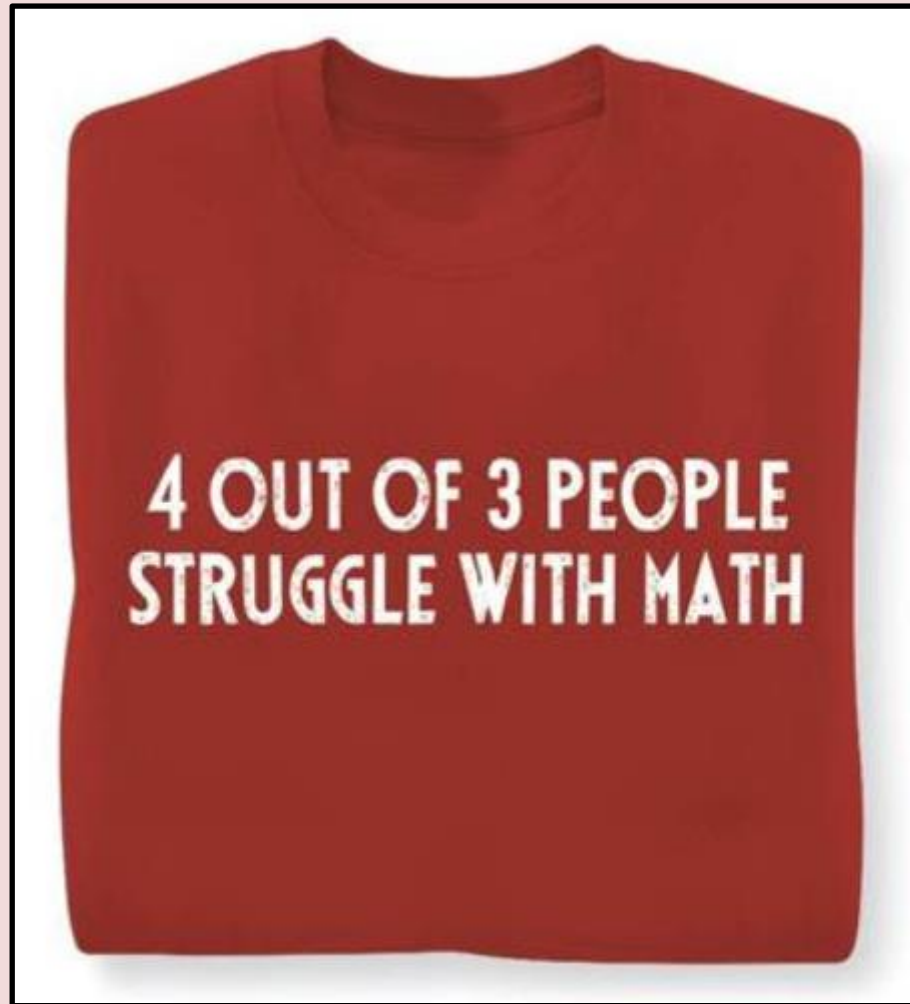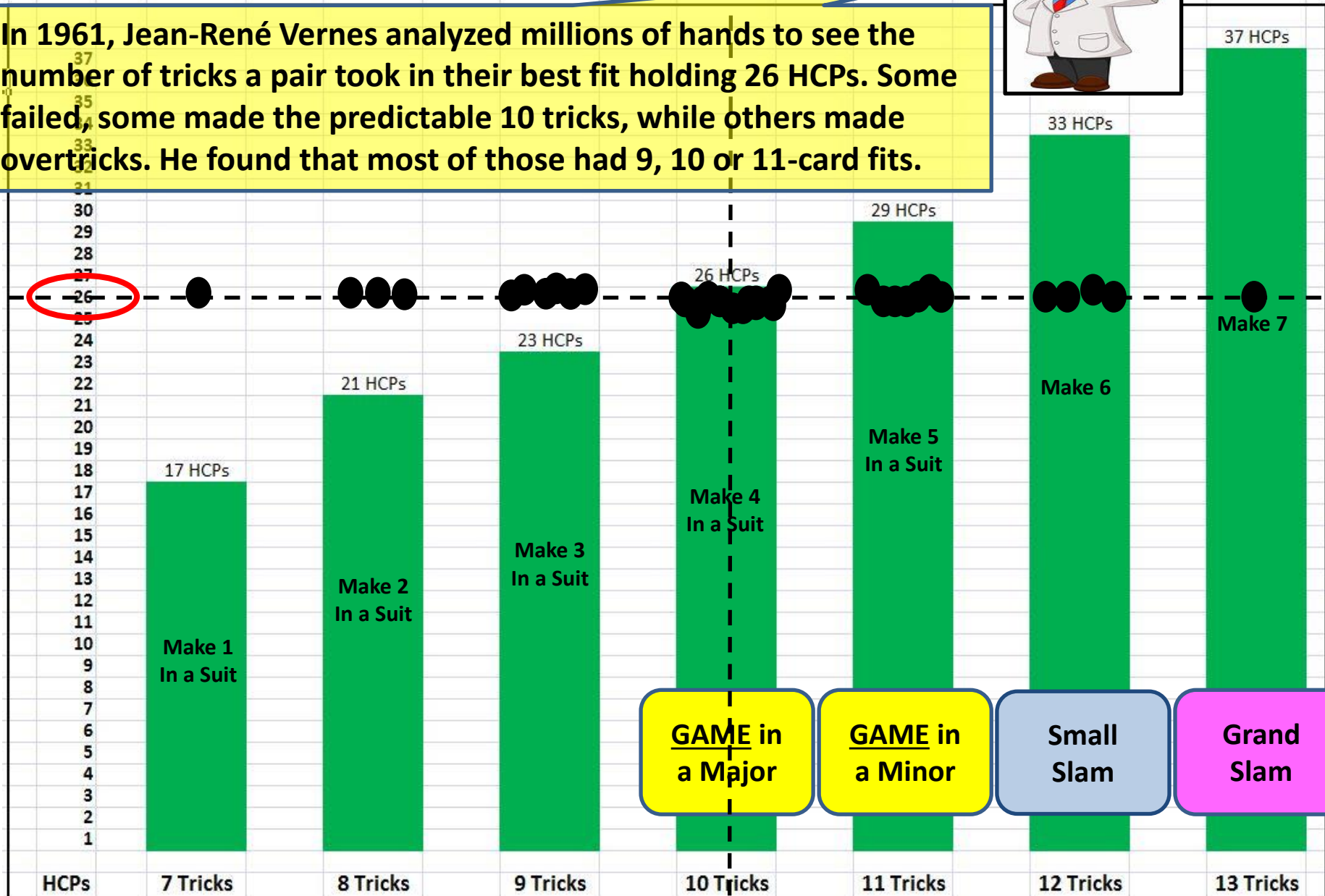
Confused? Don't Worry!

HCP Requirements by Number of Tricks
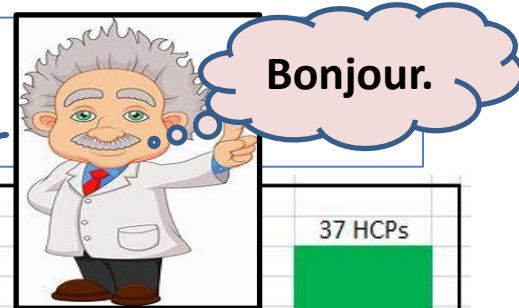
In 1961, Jean-René Vernes analyzed millions of hands to see the number of tricks a pair took in their best fit holding 26 HCPs. Some failed, some made the predictable 10 tricks, while others made overtricks. He found that most of those had 9, 10 or 11-card fits.

Bonjour.

	Make 1 In a Suit	Make 2 In a Suit	Make 3 In a Suit	Make 4 In a Suit	Make 5 In a Suit	Make 6	Make 7
	17 HCPs	21 HCPs	23 HCPs	26 HCPs	29 HCPs	33 HCPs	37 HCPs
				GAME in a Major	**GAME** in a Minor	Small Slam	Grand Slam
HCPs	7 Tricks	8 Tricks	9 Tricks	10 Tricks	11 Tricks	12 Tricks	13 Tricks

HCP Requirements
by Number of Tricks

Jean-René knew that mathematically, when a pair has a super fit, the opponents must also have one. He graphed the number of tricks the opponents took in their super fits. Surprisingly, they took many more than their 14 HCPs might suggest from the graph. Hmm …

37 HCPs

33 HCPs

29 HCPs

26 HCPs

Make 7

23 HCPs

Make 6

21 HCPs

Make 5
In a Suit

17 HCPs

Make 4
In a Suit

In a Suit

Make 2
In a Suit

Make 1
In a Suit

| GAME in a Major | GAME in a Minor | Small Slam | Grand Slam |

| HCPs | 7 Tricks | 8 Tricks | 9 Tricks | 10 Tricks | 11 Tricks | 12 Tricks | 13 Tricks |

The Trick Reservoir

17 Total Tricks

Let's suppose, on a certain hand, the best N/S has is an 8-card fit in ♥'s and the best E/W has is a 9-card fit in ♦'s.

Now imagine a reservoir that is filled with a certain number of tricks that is equal to the total of those two fit lengths (8 ♥'s + 9 ♦'s = 17 tricks).

The <u>Law of Total Tricks</u> says that if both N/S and E/W were to get a chance to play in their best fit, they would make a total number of tricks between them that are in the Trick Reservoir (in this case, 17). This means that if N/S can take 10 tricks from the reservoir, E/W should take the rest (7 tricks). If N/S can take 6 tricks from the reservoir, E/W should take 11 tricks, regardless of the HCPs on each side!

So, if you knew how many total tricks there were in the reservoir for a certain deal, and you knew how many tricks the opponents are likely to take (use up), you could calculate how many tricks your side can take (the remainder). **NOW THAT'S POWER!**

The Formula
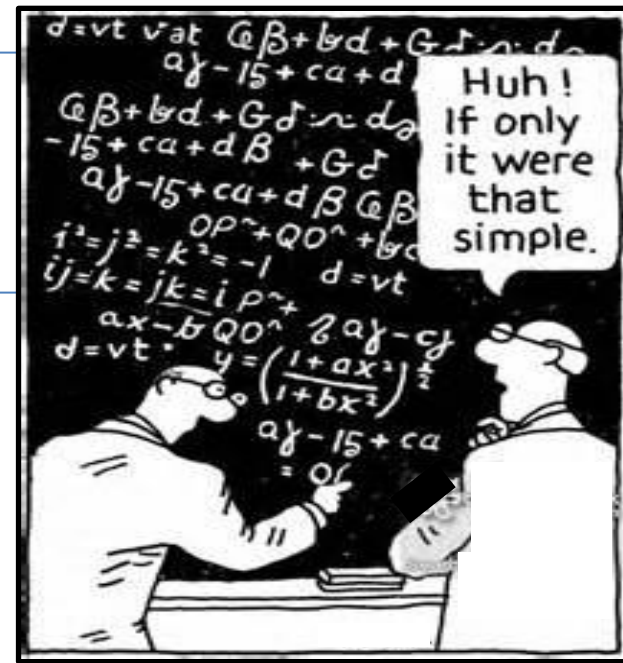
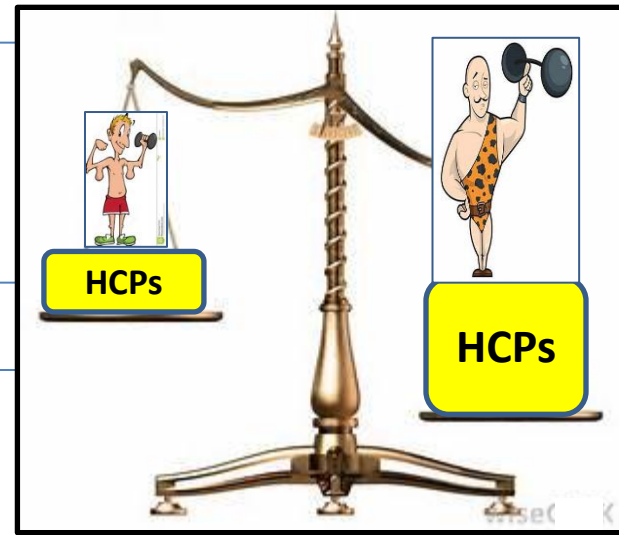**Total Trump Your Side Has In Your Best Fit** + **Total Trump Their Side Has In Their Best Fit** = **Total Tricks Available in the Trick Reservoir**

Putting It Into Practice

HCPs

HCPs

*Both majors and a good hand

*Weak 2 Bid: 6 ♦'s and about 9 HCPs

*Blackwood – asking for aces

North	East	South	West
2D*	3D*	4D	Dbl*
Pass	4NT*	Pass	5D
Pass	6H	???	

One ace

Vul: None
Dlr: North

*Responsive Double – partner, pick a major

North
♠ 95
♥ 632
♦ AKJ963
♣ Q5

West
♠ KJ6
♥ A95
♦ Q
♣ J109862

East
♠ AQ1032
♥ KQJ1074
♦ ---
♣ A3

South
♠ 874
♥ 8
♦ 1087542
♣ K74

21 Total Tricks

Available Tricks = 12 Diamonds + 9 Hearts = 21

Opponents will use 12 of them

North can have at most 3 ♥'s, since he opened a weak 2D bid. They must have a 9-card ♥ fit.

This leaves 9 tricks left for your side. Bid 7D! Down 4 doubled = -800 vs. -980

Another Joke

Years ago, the Russian and Polish border was a bit more fluid than it is today. One year, Uri's farm is in Russia and then the next, it may be in Poland. Uri and Kuba met up at the local feed store and have a conversation.

Kuba asks, "How are you doing, Uri?"

"Not bad," Uri replies.

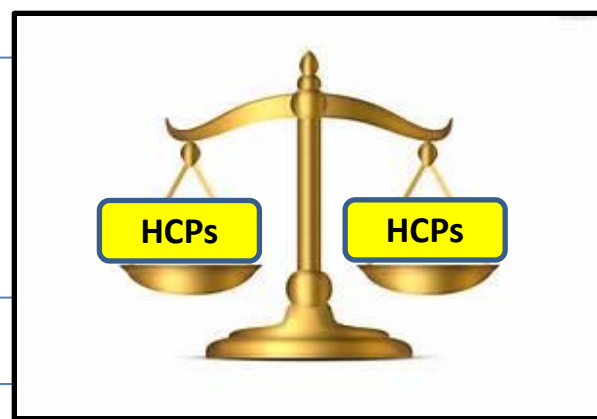Kuba says, "Did you hear the border moved again?"

"Oh, really, which way?" Uri asks.

"Well, let's just say we're in Poland this year."

"Oh great," Uri says. "I don't think I could handle another Russian winter."

The Corollary

If the HCPs are evenly split, each side will take as many tricks as they have total trumps

HCPs   HCPs

North	East	South	West
			2H
2S	3H*	3S**	Pass
Pass	???		

Vul: None
Dlr: West

With a 9-card fit, East should bid 4H. Even if doubled, it goes down 1: -100 vs their +140.

North
♠ KJ976
♥ 1083
♦ AQ
♣ Q85

West
♠ 105
♥ AKJ965
♦ 83
♣ 963

East
♠ 84
♥ Q42
♦ K9542
♣ AK2

South
♠ AQ32
♥ 8
♦ J1076
♣ J1074

* East bid 3H because they have 9 total hearts.

** South bid 3S to make, because of his 4th spade.

N/S have 9 spades and will take 9 tricks. E/W have 9 hearts and will take 9 tricks.

Another partscore vs. partscore sacrifice.

Hand #93 from the 1958 World Championships

Vul: None
Dlr: West

North
♠ A6
♥ 97
♦ K964
♣ AQ932

West
♠ QJ1092
♥ 10854
♦ AQ
♣ J4

East
♠ K87
♥ AQ62
♦ J10852
♣ 6

South
♠ 543
♥ KJ3
♦ 73
♣ K10875

N/S, played 4C in their 10-card fit, taking 10 tricks (making).

At the other table, E/W, played 2S after an aggressive 2S opening bid. They took 8 tricks in their 8-card fit (making).

10 Clubs + 8 Spades = 18 Total Tricks Available

In Summary
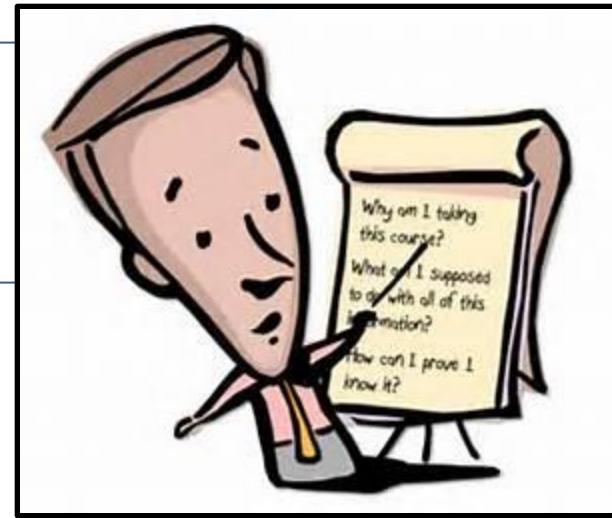
Modern bidding techniques recognize the validity of this formula and have spawned a myriad of new conventions to communicate a partner's number of trumps:

➢ **Limit Raises with 3 trumps vs. 4 trumps in the 2/1 Bidding System**
➢ **Bergen Raises**
➢ **Mixed Raises**
➢ **1-2-3 Stop**
➢ **Jacoby 2NT over a major opening (always with 4⁺ trumps)**
➢ **Splinters (always with 4⁺ trumps)**
➢ **Etc.**

Time to Play