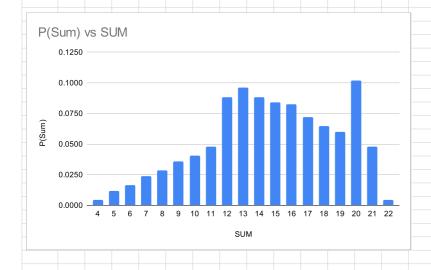
	Let's c	onside	er the f	ollowin	g arrar	ngemer	t of po	ssible	pairs a	nd sum	s of fa	ce valu	es. Let	's cour	t how	many th	ere are.				
Qtys	Cards	2	3	4	5	6	7	8	9	10	J	Q	K	A		Exampl	es:				
12	2	4	5	6	7	8	9	10	11	12	12	12	12	13		For Qty	sum 5,	two ways	to be d	ealt	
32	3	5	6	7	8	9	10	11	12	13	13	13	13	14		2, 3 or 3	3, 2.				
44	4	6	7	8	9	10	11	12	13	14	14	14	14	15		each wi	ith 4 pos				
64	5	7	8	9	10	11	12	13	14	15	15	15	15	16		so 2*4*	4=32				
76	6	8	9	10	11	12	13	14	15	16	16	16	16	17		For sun	n 6 (and	all even s	sums)		
96	7	9	10	11	12	13	14	15	16	17	17	17	17	18		there is	one way	y (same f	ace valu	ue),	
108	8	10	11	12	13	14	15	16	17	18	18	18	18	19		with cou	unts 4*3	ds, so			
128	9	11	12	13	14	15	16	17	18	19	19	19	19	20		2*4*4+	1*4*3 =	44			
236	10	12	13	14	15	16	17	18	19	20	20	20	20	21							
-	J	12	13	14	15	16	17	18	19	20	20	20	20	21							
-	Q	12	13	14	15	16	17	18	19	20	20	20	20	21							
-	K	12	13	14	15	16	17	18	19	20	20	20	20	21							
256	Α	13	14	15	16	17	18	19	20	21	21	21	21	22							
	Qtys	256	236	224	220	192	172	160	272	128	-	-	-	12							
SUM	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	19	possible sums
QTY	12	32	44	64	76	96	108	128	236	256	236	224	220	192	172	160	272	128	12	2668	qty of each sum
P(Sum)	0.0045	0.0120	0.0165	0.0240	0.0285	0.0360	0.0405	0.0480	0.0885	0.0960	0.0885	0.0840	0.0825	0.0720	0.0645	0.0600	0.1019	0.0480	0.0045	1.0000	total



Let's compute PT(Sum) probability of a player's hand be involved in a TIE after the second card is dealt.

First DECISION: BET on TIES or NOT

For Ties, possible sums are calculated based on initial cards from both player and dealer, as follows:

SET A: For the person with the lower face card, possible tie-sums goes from LowerCard + 2 up to LowerCard + 11

SET B: For the person with the higher face card, possible tie-sums go from HigherCard + 2 up to HigherCard + 11

SET A n SET B: The list of possible sums goes from HigherCard + 2 up to LowerCard + 11. See examples below:

Example 1: Player gets 4, Dealer gets 9. This example gives 5 possible sums: 11, 12, 13, 14, 15 for a tie-value.

This way, in the table the point (Player's 1st. Card, Dealer's 1st Card) = (4, 9) will be P(11)+P(12)+P(13)+P(14)+P(15)=

es	P\D	2	3	4		5	6 7	8	9	10	J	Q	K	Α				
	2								11									
	3	lower t	han the i	initial (dealer'	s card			12									
	4	6	7	8	ę	9 1	11	12	13	14	14	14	14	15				
	5								14									
	6								15									
	7								16									
	8								17									
	9								18									
	10		not read	chable b	y playe	r's seco	nd card {		19									
	J								19									
	Q								19									
	K								19									
	Α								20									
mpl	e 2: Pla	yer get	s 10, D	ealer g	ets 3.	This e	cample g	ives 3	possibl	le sum	s: 12, 1	3, 14 fc	or a tie-	value				
wa	v. in the	table	the poi	nt (Play	ver's 1	st. Ca	d, Deale	r's 1st	Card) =	(10. 3)	will be	P(12)+	P(13)+	P(14)=	0.2729			

0.4048

Ties	P\D	2	3	4	- 5	6	7	8	9	10	J	Q	K	Α						
	2		5			-		-	J		J	w.								
	3		6																	
	4		7																	
	5		8		} lower	than the	e initial	l player'	s card											
	6		9																	
	7		10																	
	8		11																	
	9 10		12 13																	
	J		13					-6-61- 6-												
	Q	12	13	14	15	16		18	player'	s second	20	20	20	21						
	K		13		10	10		10	10			20								
	Α		14																	
General	table w	here ea	ach cel	l repre	sents a	probal	bility o	f a tie f	or each	pair o	f first c	ards Pl	ayer x	Dealer						
This way		table t	he poir	nt P(Pla	ayer's 1	lst. Car	d, Dea	ler's 1s												
Ties	P\D	2	3	4	5			8		10-K	Α									
	2					0.3373														
	3					0.4258														
	4 5		0.4663			0.5097			0.4048											
	6					0.5922					0.3508									
	7		0.3973						0.6237	0.5757										
	8		0.3613					0.7241		0.6357										
	9		0.3208				0.6237	0.6837	0.7856	0.7376	0.6492									
	10-K	0.1844	0.2729	0.3568	0.4393	0.5112	0.5757	0.6357	0.7376	0.7856	0.6972									
	Α	0.0960	0.1844	0.2684	0.3508	0.4228	0.4873	0.5472	0.6492	0.6972	0.7016									
	_						<u> </u>													
												ept whe	n the ir	nitial						
	initiai p	air of c	ard is (A	4,2) or ((2, A), V	vhich wi	III be air	egarde	a tor p	iayer -	dealer	= 9								
Second	DECISI	ON ie t	o doub	lo or to	koon	origial l	hot for	winnin	~											
						_			_	d on th	e first (ards d	ealt as	s follov	ve.					
	hlina de				uto tile	· ouus ·	o	iiig aic	o succi	u 011 tii		Ju. 45 4	ouit, ut	, .0						
For doub				face c	ard, the	possi	ble ma	ximun 1	otal ha	nd is C	ard + 1	11								
				face c	ard, the	e possi	ble ma	ximun 1	otal ha	nd is C	ard + 1	11								
For doub	r the pe	erson w	ith the										, 15 foı	r a tie-\	/alue.					
For doubter Fact: For Example This way	r the pe e 1: Play y, in the	erson w er gets table t	rith the s 4, Dea he poir	aler ge	ts 9. Th /er's 1s	is exar	nple gi , Deale	ves 5 p r's 1st	ossible Card) =	sums (4, 9)	: 11, 12 will be	, 13, 14 P(MinC	ard+11			rgerCar	d + 11)	to Deale	r	
For doub	er the pe e 1: Play y, in the P\D	erson w /er gets	vith the	aler ge	ts 9. Th	is exar	nple gi	ves 5 p	ossible Card) = 9	sums	: 11, 12	, 13, 14			P(La	rgerCar	d + 11)	to Deale	r	
For doubter Fact: For Example This way	er the per e 1: Play y, in the P\D	erson w er gets table t	rith the s 4, Dea he poir 3	aler ge nt (Play 4	ts 9. Th ver's 1s 5	is exar at. Card	nple gi , Deale	ves 5 p r's 1st	ossible Card) = 9	sums (4, 9)	: 11, 12 will be	, 13, 14 P(MinC	ard+11	+1) + .	P(La	rgerCar	d + 11)	to Deale	er .	
For doubter Fact: For Example This way	e 1: Play y, in the P\D 2	erson we're gets table t	rith the s 4, Dea he poir 3	aler gen nt (Play 4	ts 9. The series 1s 5	is exar	nple gi , Deale 7	ves 5 p r's 1st 8	ossible Card) = 9 11 12	e sums : (4, 9) · 10	: 11, 12 will be	, 13, 14 P(MinC Q	ard+11 K	+1) + . A	P(La	rgerCar	d + 11)	to Deale	er .	
For doubter Fact: For Example This way	e 1: Play y, in the P\D 2 3	erson w er gets table t	rith the s 4, Dea he poir 3	aler ge nt (Play 4	ts 9. The series 1s 5	is exar	nple gi , Deale 7	ves 5 p r's 1st	ossible Card) = 9 41 42 43	sums (4, 9)	: 11, 12 will be	, 13, 14 P(MinC	ard+11	+1) + .	P(La	rgerCar	d + 11)	to Deale	r	
For doubter Fact: For Example This way	er the per the	erson we're gets table t	rith the s 4, Dea he poir 3	aler gen nt (Play 4	ts 9. The series 1s 5	is exar	nple gi , Deale 7	ves 5 p r's 1st 8	ossible Card) = 9 11 12 13 14	e sums : (4, 9) · 10	: 11, 12 will be	, 13, 14 P(MinC Q	ard+11 K	+1) + . A	P(La	rgerCar	d + 11)	to Deale	ir	
For doubter Fact: For Example This way	e 1: Play y, in the P\D 2 3	erson we're gets table t	rith the s 4, Dea he poir 3	aler gen nt (Play 4	ts 9. The series 1s 5	is exar	nple gi , Deale 7	ves 5 p r's 1st 8	ossible Card) = 9 11 12 13 14 15	e sums : (4, 9) · 10	: 11, 12 will be	, 13, 14 P(MinC Q	ard+11 K	+1) + . A	P(La	rgerCar	d + 11)	to Deale	r	
For doubter Fact: For Example This way	e 1: Play y, in the P\D 2 3 4 5	erson we're gets table t	rith the s 4, Dea he poir 3	aler gen nt (Play 4	ts 9. The series 1s 5	is exar	nple gi , Deale 7	ves 5 p r's 1st 8	ossible Card) = 9 11 12 13 14	e sums : (4, 9) · 10	: 11, 12 will be	, 13, 14 P(MinC Q	ard+11 K	+1) + . A	P(La	rgerCar	d + 11)	to Deale	ir	
For doubter Fact: For Example This way	r the pe e 1: Play y, in the P\D 2 3 4 5 6	erson we're gets table t	rith the s 4, Dea he poir 3	aler gen nt (Play 4	ts 9. The series 1s 5	is exar	nple gi , Deale 7	ves 5 p r's 1st 8	ossible Card) = 9 11 12 13 14 15	e sums : (4, 9) · 10	: 11, 12 will be	, 13, 14 P(MinC Q	ard+11 K	+1) + . A	P(La	rgerCar	d + 11)	to Deale	ir	
For doubter Fact: For Example This way	e 1: Play y, in the P\D 2 3 4 5 6 7	erson we're gets table t	rith the s 4, Dea he poir 3	aler gent (Play	ts 9. The ver's 1s 5 dealer's	is exar	mple gi I, Deale 7	ves 5 pr's 1st 8	ossible Card) = 9 44 42 43 44 45 16	e sums : (4, 9) · 10	: 11, 12 will be	, 13, 14 P(MinC Q	ard+11 K	+1) + . A	P(La	rgerCar	d + 11)	to Deale	ir	
For doubter Fact: For Example This way	1: Play 2: 1: Play 4: 5 6: 7 8: 9 10 J	erson we're gets table t	rith the s 4, Dea he poir 3	aler gent (Play	ts 9. The ver's 1s 5 dealer's	card 40	mple gi I, Deale 7	ves 5 pr's 1st 8	ossible Card) = 9 41 42 13 44 45 16 17 18 19	e sums : (4, 9) · 10	: 11, 12 will be	, 13, 14 P(MinC Q	ard+11 K	+1) + . A	P(La	rgerCar	d + 11)	to Deale		
For doubter Fact: For Example This way	1: Play 2: 1: Play 4: 5 6: 7 8: 9 10 J Q	erson we're gets table t	rith the s 4, Dea he poir 3	aler gent (Play	ts 9. The ver's 1s 5 dealer's	card 40	mple gi I, Deale 7	ves 5 pr's 1st 8	ossible Card) = 9 41 42 13 14 45 16 17 18 19 19	e sums : (4, 9) · 10	: 11, 12 will be	, 13, 14 P(MinC Q	ard+11 K	+1) + . A	P(La	rgerCar	d + 11)	to Deale		
For doubter Fact: For Example This way	e 1: Play y, in thee P\D 2 3 4 5 6 7 8 9 10 J	erson we're gets table t	rith the s 4, Dea he poir 3	aler gent (Play	ts 9. The ver's 1s 5 dealer's	card 40	mple gi I, Deale 7	ves 5 pr's 1st 8	ossible Card) = 9 11 12 13 14 15 16 17 18 19 19 19	e sums : (4, 9) · 10	: 11, 12 will be	, 13, 14 P(MinC Q	ard+11 K	+1) + . A	P(La	rgerCar	d + 11)	to Deale	ir	
For doubter Fact: For Example This way	1: Play 2: 1: Play 4: 5 6: 7 8: 9 10 J Q	erson we're gets table t	rith the s 4, Dea he poir 3	aler gent (Play	ts 9. The ver's 1s 5 dealer's	card 40	mple gi I, Deale 7	ves 5 pr's 1st 8	ossible Card) = 9 41 42 13 14 45 16 17 18 19 19	e sums : (4, 9) · 10	: 11, 12 will be	, 13, 14 P(MinC Q	ard+11 K	+1) + . A	P(La	rgerCar	d + 11)	to Deale	r	
For doubter Fact: For Example This way	e 1: Play y, in thee P\D 2 3 4 5 6 7 8 9 10 J	erson we're gets table t	rith the s 4, Dea he poir 3	aler gent (Play 4 Initial (ts 9. The ver's 1s 5 dealer's	card 40	mple gi I, Deale 7	ves 5 pr's 1st 8	ossible Card) = 9 11 12 13 14 15 16 17 18 19 19 19	e sums : (4, 9) · 10	: 11, 12 will be	, 13, 14 P(MinC Q	ard+11 K	+1) + . A	P(La	rgerCar	d + 11)	to Deale	r	
For doubter Fact: For Example This way	e 1: Play y, in thee P\D 2 3 4 5 6 7 8 9 10 J	erson we're gets table t	rith the s 4, Dea he poir 3	aler gent (Play 4 Initial (ts 9. The ver's 1s 5 dealer's	card 40	mple gi I, Deale 7	ves 5 pr's 1st 8	ossible Card) = 9 11 12 13 14 15 16 17 18 19 19 19	e sums : (4, 9) · 10	: 11, 12 will be	, 13, 14 P(MinC Q	ard+11 K	+1) + . A	P(La	rgerCar	d + 11)	to Deals	r	
For doul Fact: Fo Example This way Ties	e 1: Play y, in thee P\D 2 3 4 5 6 7 8 9 10 J Q K	ver gets table t 2 lower th 6	vith the	aler geint (Play 4 4 sinitial c 8	ts 9. The ver's 1s 5 5 5 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	card 40	mple gi , Deale 7	ves 5 p r's 1st 8	ossible Card) = 9	e sums f (4, 9) 1 10	: 11, 12 will be J	, 13, 14 P(MinC Q	44	+1) +. A	P(La	rgerCar	d + 11)	to Deals	r	
For doubter Fact: For Example This way	e 1: Play y, in thee P\D 2 3 4 5 6 7 8 9 10 J Q K A	/er gets table t 2 lower th 6	rith the	aler geint (Play 4 4 8 8	s 9. The ver's 1s 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	card 40	mple gi , Deale , Deale , 11	ves 5 p r's 1st 8 8 42	ossible Card) = 9	e sums f (4, 9) 10 10 110 110 110 110 110 110 110 110	: 11, 12 will be J 44	, 13, 14 P(MinC Q 14	ard+111 K	+1) + A	P(La					
For doul Fact: Fo Example This way Ties	e 1: Play y, in thee P\D 2 3 4 5 6 7 8 9 10 J Q K A	/er gets table t 2 lower th 6	rith the	aler geint (Play 4 4 8 8	s 9. The ver's 1s 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	card 40	mple gi , Dealee 7 41 41 mple gi	ves 5 pr's 1st 8 8 42 42 42 42 42 42 42 42 42 42 43 442 43 442 45 45 45 45 45 45 45 45 45 45 45 45 45	ossible Card) = 9 41 42 43 44 45 16 17 18 19 19 20 possible Card) = 20	e sums f (4, 9) 10 10 110 110 110 110 110 110 110 110	: 11, 12 will be J 44	, 13, 14 P(MinC Q 14	ard+111 K	+1) + A 45	P(La					
For doul Fact: Fo Example This way Ties Example This way	e 1: Play y, in thee P\D 2 3 4 5 6 7 8 9 10 J Q K A	/er gets table t 2 lower th 6	ith the	aler gei nt (Play 4 8 advantaj	s 9. The ver's 1s 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	card 40	mple gi , Dealee 7 41 41 mple gi	ves 5 pr's 1st 8 8 42 42 42 42 42 42 42 42 42 42 43 442 43 442 45 45 45 45 45 45 45 45 45 45 45 45 45	ossible Card) = 9 41 42 43 44 45 16 17 18 19 19 20 possible Card) = 20	e sums f (4, 9) 10 10 110 110 110 110 110 110 110 110	: 11, 12 will be J J 44	, 13, 14 P(MinC Q 14	ard+111 K 44 44	+1) + A 45	P(La					
For doul Fact: Fo Example This way Ties Example This way	e 1: Play y, in thee P\D 2 3 4 5 6 7 8 9 10 J Q K A	/er gets table t 2 lower th 6	ith the side of the point of th	aler gei nt (Play 4 8 advantaj	s 9. The ver's 1s 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	card 40	mple gi , Dealee 7 41 41 mple gi	ves 5 pr's 1st 8 8 42 42 42 42 42 42 42 42 42 42 43 442 43 442 45 45 45 45 45 45 45 45 45 45 45 45 45	ossible Card) = 9 41 42 43 44 45 16 17 18 19 19 20 possible Card) = 20	e sums f (4, 9) 10 10 110 110 110 110 110 110 110 110	: 11, 12 will be J J 44	, 13, 14 P(MinC Q 14	ard+111 K 44 44	+1) + A 45	P(La					
For doul Fact: Fo Example This way Ties	e 1: Play y, in thee 2 3 4 5 6 7 8 9 10 J Q K A 2: Play y, in thee	/er gets table t 2 lower th 6	s 4, Decided to the point of th	aler gei nt (Play 4 8 advantaj	s 9. The ver's 1s 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	card 40	mple gi , Dealee , T 11 11 ample g	ves 5 pr's 1st 8 8 42 42 42 42 42 42 42 42 42 42 43 442 43 442 45 45 45 45 45 45 45 45 45 45 45 45 45	ossible Card) = 9 41 42 43 44 45 16 17 18 19 19 20 possible Card) = 20	e sums f (4, 9) 10 10 110 110 110 110 110 110 110 110	: 11, 12 will be J J 44	, 13, 14 P(MinC Q 14	ard+111 K 44 44	+1) +	P(La					
For doul Fact: Fo Example This way Ties Example This way	e 1: Play y, in thee 2 3 4 5 6 7 8 9 10 J Q K A 2: Play y, in thee	/er gets table t 2 lower th 6	s 10, Do	aler gei nt (Play 4 8 advantaj	ts 9. The ver's 1s 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	card 40	mple gi , Dealee , T 11 11 r player mmple g , Deale , Deale , T	ves 5 pr's 1st 8 8 42 42 42 42 42 42 42 42 42 42 43 43 43 43 43 43 43 43 43 43 43 43 43	ossible Card) = 9 41 42 43 44 45 16 17 18 19 20 possible Card) = 9	e sums f (4, 9) 10 10 110 110 110 110 110 110 110 110	: 11, 12 will be J J 44	, 13, 14 P(MinC Q 14	ard+111 K 44 44	+1) +	P(La					
For doul Fact: Fo Example This way Ties Example This way	e 1: Play y, in thee P\D 2 3 4 5 6 7 8 9 10 J Q K A 2: Play y, in thee	/er gets table t 2 lower th 6	s 10, Do	aler gei nt (Play 4 8 advantaj	ts 9. The ver's 1s 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	card 40 his exard t. Card card 40	mple gi , Dealee , T 11 11 r player mmple g , Deale , Deale , T	ves 5 pr's 1st 8 8 42 42 42 42 42 42 42 42 42 42 43 43 43 43 43 43 43 43 43 43 43 43 43	ossible Card) = 9 41 42 43 44 45 16 17 18 19 20 possible Card) = 9	e sums f (4, 9) 10 10 110 110 110 110 110 110 110 110	: 11, 12 will be J J 44	, 13, 14 P(MinC Q 14	ard+111 K 44 44	+1) +	P(La					
For doul Fact: Fo Example This way Ties	e 1: Play y, in thee P\D 2 3 4 5 6 7 8 9 10 J Q K A 2: Play y, in thee	/er gets table t 2 lower th 6	s 10, Do	aler gei nt (Play 4 8 advantaj	ts 9. The ver's 1s 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	card 40 his exard t. Card card 40	mple gi , Dealee , T 11 11 r player mmple g , Deale , Deale , T	ves 5 pr's 1st 8 8 42 42 42 42 42 42 42 42 42 42 43 43 43 43 43 43 43 43 43 43 43 43 43	ossible Card) = 9 41 42 43 44 45 16 17 18 19 20 possible Card) = 9	e sums f (4, 9) 10 10 110 110 110 110 110 110 110 110	: 11, 12 will be J J 44	, 13, 14 P(MinC Q 14	ard+111 K 44 44	+1) +	P(La					
For doul Fact: Fo Example This way Ties	e 1: Play y, in thee P\D 2 3 4 5 6 7 8 9 10 J Q K A 2: Play y, in thee P\D 2 3 4 5 6 7 8 9 10 8 7 8	/er gets table t 2 lower th 6	s 10, Do	aler gei nt (Play 4 8 advantaj	s 9. The ver's 1s 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	card 40 his exard t. Card card 40	mple gi , Dealee , T 11 11 r player mmple g , Deale , Deale , T	ves 5 pr's 1st 8 8 42 42 42 42 42 42 42 42 42 42 43 43 43 43 43 43 43 43 43 43 43 43 43	ossible Card) = 9 41 42 43 44 45 16 17 18 19 20 possible Card) = 9	e sums f (4, 9) 10 10 110 110 110 110 110 110 110 110	: 11, 12 will be J J 44	, 13, 14 P(MinC Q 14	ard+111 K 44 44	+1) +	P(La					
For doul Fact: Fo Example This way Ties Example This way	e 1: Play y, in thee P\D 2 3 4 5 6 7 8 9 10 J Q K A 2: Play y, in thee P\D 2 3 4 5 6 7 8 9 10 9 10 7 8 9 10 8 9 10 9 10 10 10 10 10 10 10 10 10 10 10 10 10	/er gets table t 2 lower th 6	s 10, Do	aler gei nt (Play 4 8 advantaj	s 9. The ver's 1s 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	card 40 his exard t. Card card 40	mple gi , Dealee , T 11 11 r player mmple g , Deale , Deale , T	ves 5 pr's 1st 8 8 42 42 42 42 42 42 42 42 42 42 43 43 43 43 43 43 43 43 43 43 43 43 43	ossible Card) = 9 41 42 43 44 45 16 17 18 19 20 possible Card) = 9	e sums f (4, 9) 10 10 110 110 110 110 110 110 110 110	: 11, 12 will be J J 44	, 13, 14 P(MinC Q 14	ard+111 K 44 44	+1) +	P(La					
For doul Fact: Fo Example This way Ties Example This way	e 1: Play y, in thee P\D 2 3 4 5 6 7 8 9 10 J Q K A 2: Play y, in thee P\D 2 3 4 5 6 7 8 9 10 10 10 10 10 10 10 10 10 10 10 10 10	/er gets table t 2 lower th 6	s 10, Do he poin 3 5 10, Do he poin 4 10 4 11 4 12 4 13	aler gei nt (Play 4 8 advantaj	s 9. The ver's 1s 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	card 40 his exard t. Card card 40	mple gi , Deale , Deale , Player ample g , Deale , Deale	ves 5 p r's 1st 8 42 42 42 42 42 42 42 42 42 42 42 42 42	ossible Card) = 9 44 42 43 44 45 16 17 18 19 20 possibl Card) = 9	e sums (4, 9) (10) (14) (14) (14) (15) (16) (17) (17) (17) (17) (17) (17) (17) (17	: 11, 12 will be J J 44	, 13, 14 P(MinC Q 14	ard+111 K 44 44	+1) +	P(La					
For doul Fact: Fo Example This way Ties Example This way	e 1: Play y, in thee P\D 2 3 4 5 6 7 8 9 10 J Q K A 2: Play y, in thee P\D 2 3 4 5 6 7 8 9 10 9 10 7 8 9 10 8 9 10 9 10 10 10 10 10 10 10 10 10 10 10 10 10	/er gets table t 2 lower th 6	s 10, Do	aler gei nt (Play 4 8 advantaj	ts 9. The ver's 1s 5 5 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	card 40 this exar this exar than the	mple gi , Deale , T 141 141 r player player r player ample g , Deale 7	ves 5 pr's 1st 8 42 42 42 42 42 42 42 42 42 42 42 43 442 45 45 45 45 45 45 45 45 45 45 45 45 45	ossible Card) = 9 41 42 43 44 45 16 17 18 19 20 possible Card) = 9	e sums (4, 9) (10) (14) (14) (14) (15) (16) (17) (17) (17) (17) (17) (17) (17) (17	: 11, 12 will be J J 44	, 13, 14 P(MinC Q 14	ard+111 K 44 44	+1) + A	P(La					
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Adv.	P\D	2	3	4	5	6	7	8	9	10-K	Α										
	2	0.0000	-0.0885	-0.1724	-0.2549	-0.3268	-0.3913	-0.4513	-0.5532	-0.6012	-0.6057		Legend	i:							
	3	0.0885	0.0000	-0.0840	-0.1664	-0.2384	-0.3028	-0.3628	-0.4648	-0.5127	-0.5172		J	Adva	ntage t	Player					
	4	0.1724	0.0840	0.0000	-0.0825	-0.1544	-0.2189	-0.2789	-0.3808	-0.4288	-0.4333			Adva	ntage to	Dealer					
	5	0.2549	0.1664	0.0825	0.0000	-0.0720	-0.1364	-0.1964	-0.2984	-0.2744	-0.3508			No ad	lvantag	е					
	6	0.3268	0.2384	0.1544	0.0720	0.0000	-0.0645	-0.1244	-0.2264	-0.2744	-0.2789				T						
	7	0.3913				0.0645															
	8	0.4513	0.3628	0.2789	0.1964	0.1244	0.0600	0.0000	-0.1019	-0.1499	-0.1544										
	9	0.5532	0.4648	0.3808	0.2984	0.2264	0.1619	0.1019	0.0000	-0.0480	-0.0525										
	10-K	0.6012	0.5127	0.4288	0.3463	0.2744	0.2099	0.1499	0.0480	0.0000	-0.0045										
	Α	0.6057	0.5172	0.4333	0.3508	0.2789	0.2144	0.1544	0.0525	0.0045	0.0000										
General	strateg	y will b	e to do	ouble e	verytin	ne the f	irst car	ds are	greate	r than t	he dea	lers' fir	st card.								
In the ca	se of ti	e for fi	rst card	is Play	er vs D	ealer, v	ve will	assum	e no do	ubling	will be	made.									
As we w	ill alwa	ys bet	for Tie,	as per	our st	rategy,	if card	s are th	e same	e, we w	ill ALS	O Doub	le whe	n it's t	ie belo	w:					
Decision	:	P\D	2	3	4	5	6	7	8	9	10-K	Α									
Double		2	TIE/DD	KP	KP	KP	KP	KP	KP	KP	KP	KP		Leger	ıd:						
or Not		3	DD	TIE/DD	KP	KP	KP	KP	KP	KP	KP	KP		TIE	meas	equal ch	anges				
		4	DD	DD	TIE/DD	KP	KP	KP	KP	KP	KP	KP		DD	means	means double initial bet					
		5	DD	DD	DD	TIE/DD	KP	KP	KP	KP	KP	KP		KP	means	keep o	riginal b	et			
		6	DD	DD	DD	DD	TIE/DD	KP	KP	KP	KP	KP									
		7	DD	DD	DD	DD	DD	TIE/DD	KP	KP	KP	KP									
		8	DD	DD	DD	DD	DD	DD	TIE/DD	KP	KP	KP									
		9	DD	DD	DD	DD	DD	DD	DD	TIE/DD	KP	KP									
		10-K	DD	DD	DD	DD	DD	DD	DD	DD	TIE/DD	KP									
		Α	DD	DD	DD	DD	DD	DD	DD	DD	DD	TIE/DD									
Strategy	for whe	ther or	not goir	ng to wa	ar after	a TIE (r	on-bet) will de	pend u	ppon th	ere was	s a doub	ole-bet.	DD =>	NO W	AR.					
	Let's e	valuate	possib	le outco	omes fro	om diffe	rent str	ategies	and sir	nulate a	large i	number	of roun	ds							
	For ea	ch poss	sible dol	llar outo	come, a	n histog	ıram wi	ll show	the wei	ght of e	ach do	llar outo	ome.								
	Initial	bet will	alway	s be 2 (even n	umber	\$valu	e chips	for st	andard	refere	nce									
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	-				-					ame 10	million	s of time	es, and	registe	er the p	y) for ea	cn poss	sible ou	come.		
	Cneck	attache	ea tne c	ode to I	be used	d on dat	a-gene	ated re	poπ.												
				L .						.=											
	https://	app.mii	ndmup.	com/ma	ap/_tree	2021/1	1/56a2	a1b048	3811ec	:9708eb	12a2b8	8/at4									