



ROUNDERS (1998)



CASINO ROYALE (2006)

HAND RANKINGS



HIGH CARD

HAND RANKINGS



PAIR



HIGH CARD

HAND RANKINGS



TWO PAIR



PAIR



HIGH CARD

HAND RANKINGS



THREE OF A KIND



TWO PAIR



PAIR



HIGH CARD

HAND RANKINGS



STRAIGHT



THREE OF A KIND



TWO PAIR



PAIR



HIGH CARD

HAND RANKINGS



FLUSH



STRAIGHT



THREE OF A KIND



TWO PAIR



PAIR



HIGH CARD

HAND RANKINGS



FULL HOUSE



FLUSH



STRAIGHT



THREE OF A KIND



TWO PAIR



PAIR



HIGH CARD

HAND RANKINGS



FOUR OF A KIND



FULL HOUSE



FLUSH



STRAIGHT



THREE OF A KIND



TWO PAIR



PAIR



HIGH CARD

HAND RANKINGS



STRAIGHT FLUSH



FOUR OF A KIND



FULL HOUSE



FLUSH



STRAIGHT



THREE OF A KIND



TWO PAIR



PAIR



HIGH CARD

HAND RANKINGS



STRAIGHT FLUSH



FOUR OF A KIND



FULL HOUSE



FLUSH



STRAIGHT



THREE OF A KIND



TWO PAIR



PAIR



HIGH CARD



HAND RANKINGS



4



36



624



3744



5108

2598960



10200



54912



123552



1098240



1302540

HAND RANKINGS

	0.00015%
	0.00138%
	0.02401%
	0.14405%
	0.19654%
	0.39246%
	2.11285%
	4.75390%
	42.2569%
	50.1177%

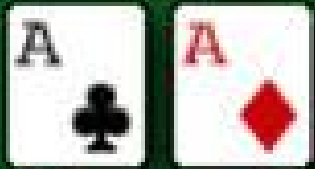
2598960





Hole cards

Player A



Player B

Hole cards

Community cards

Player A



Player B

+

Flop



River

Turn

Hole cards

Community cards

Hand cards

Player A



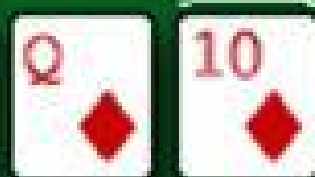
Player B

+

Flop



River



Turn

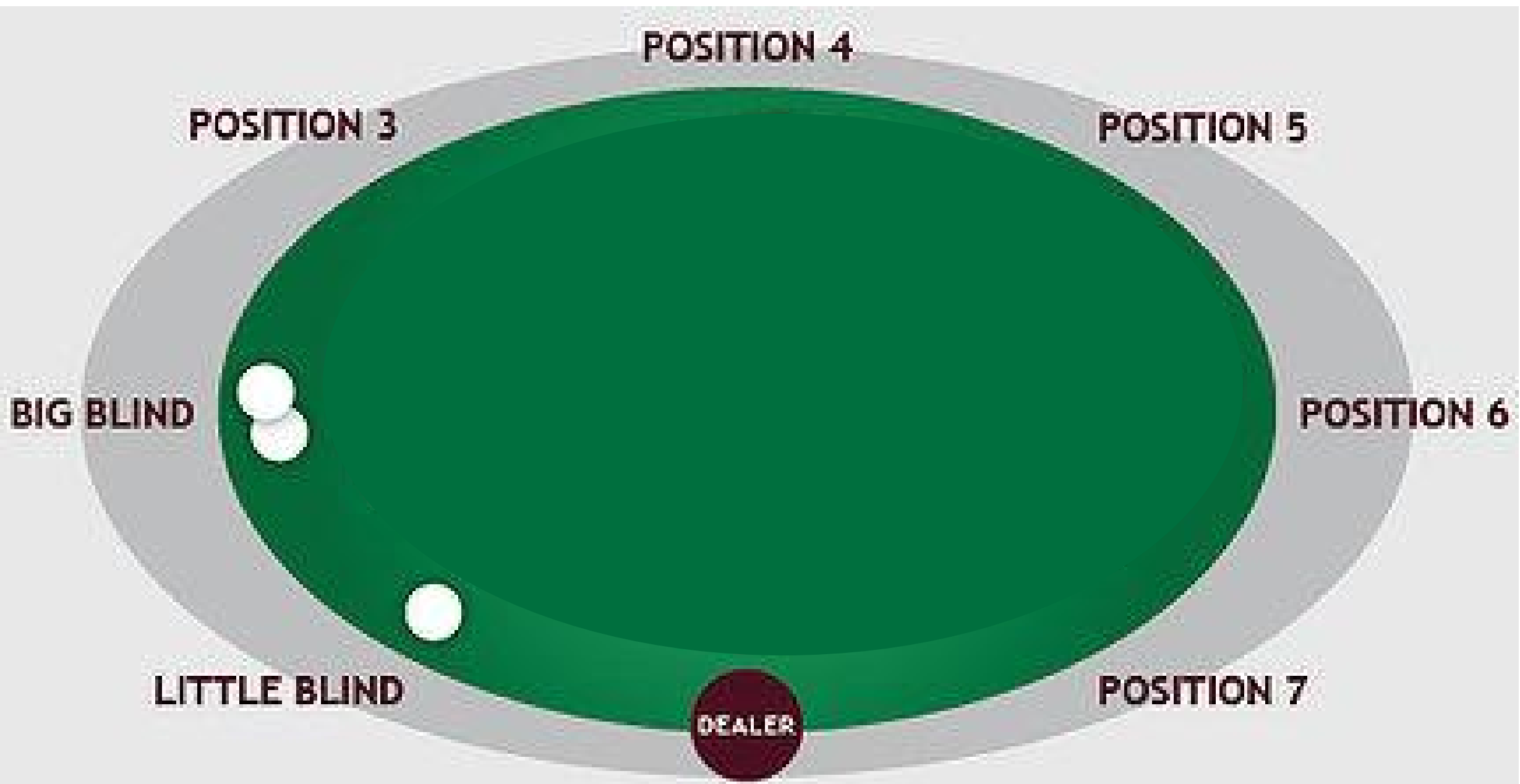
=

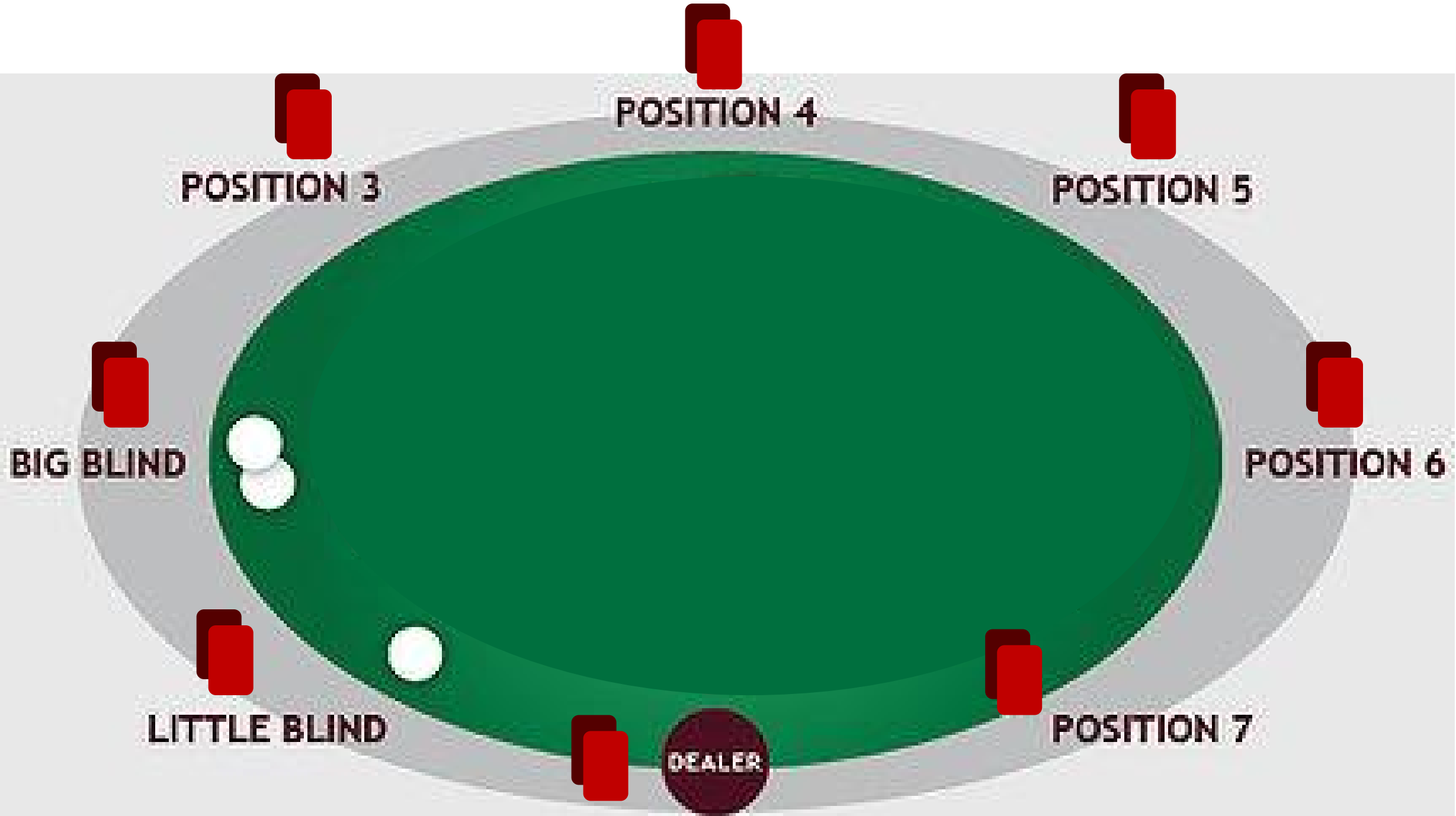
Player A

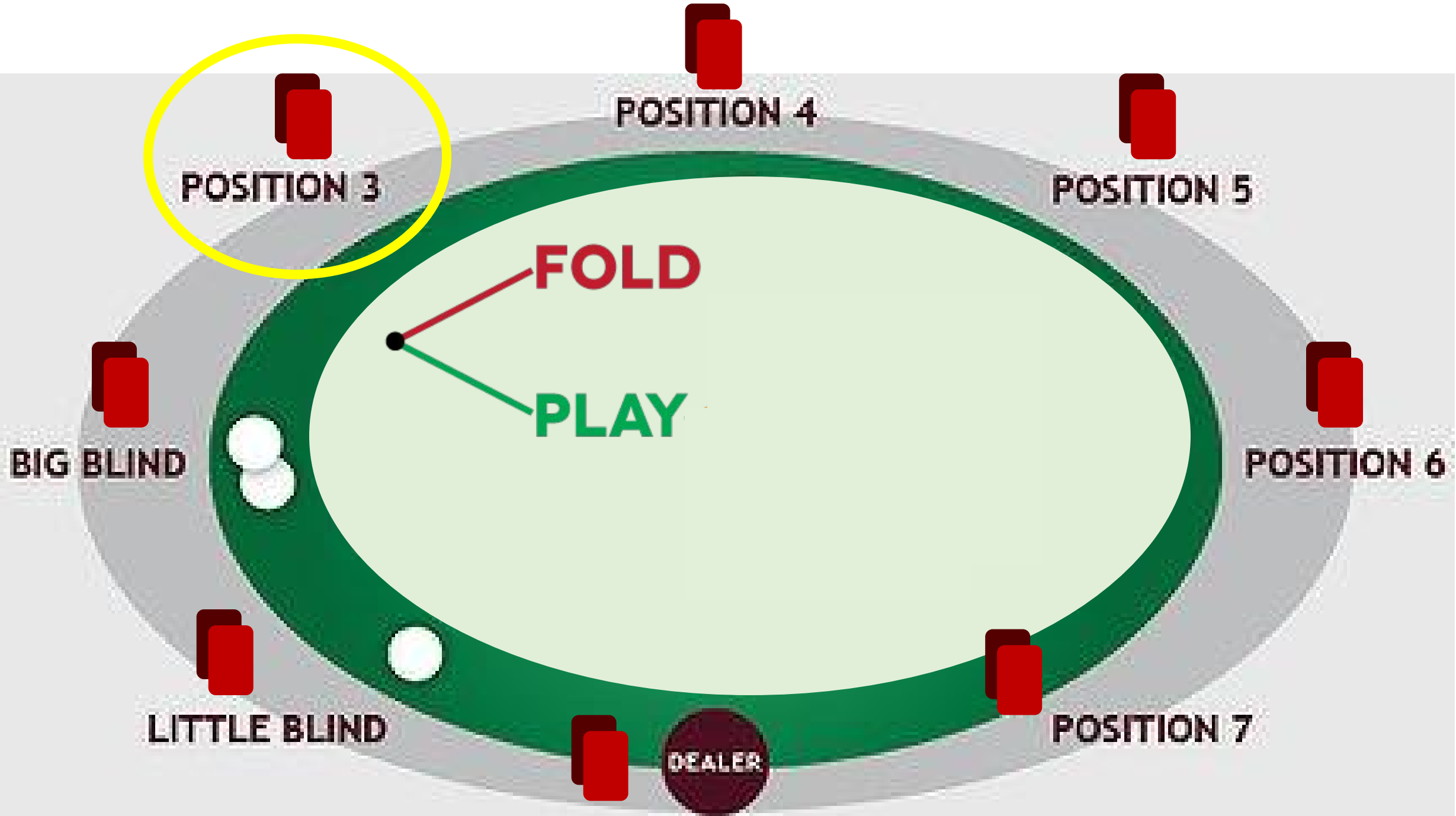


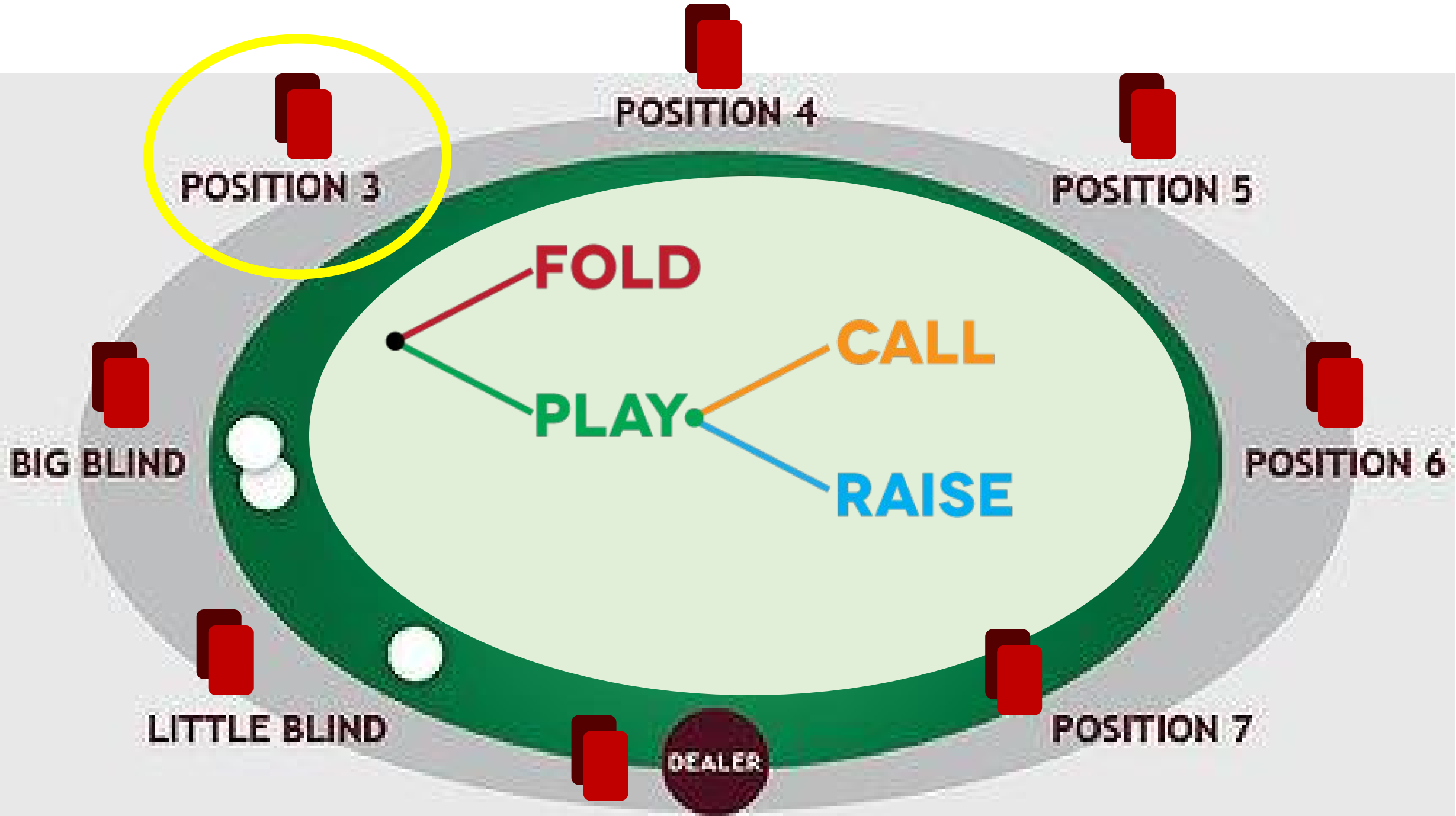
Player B

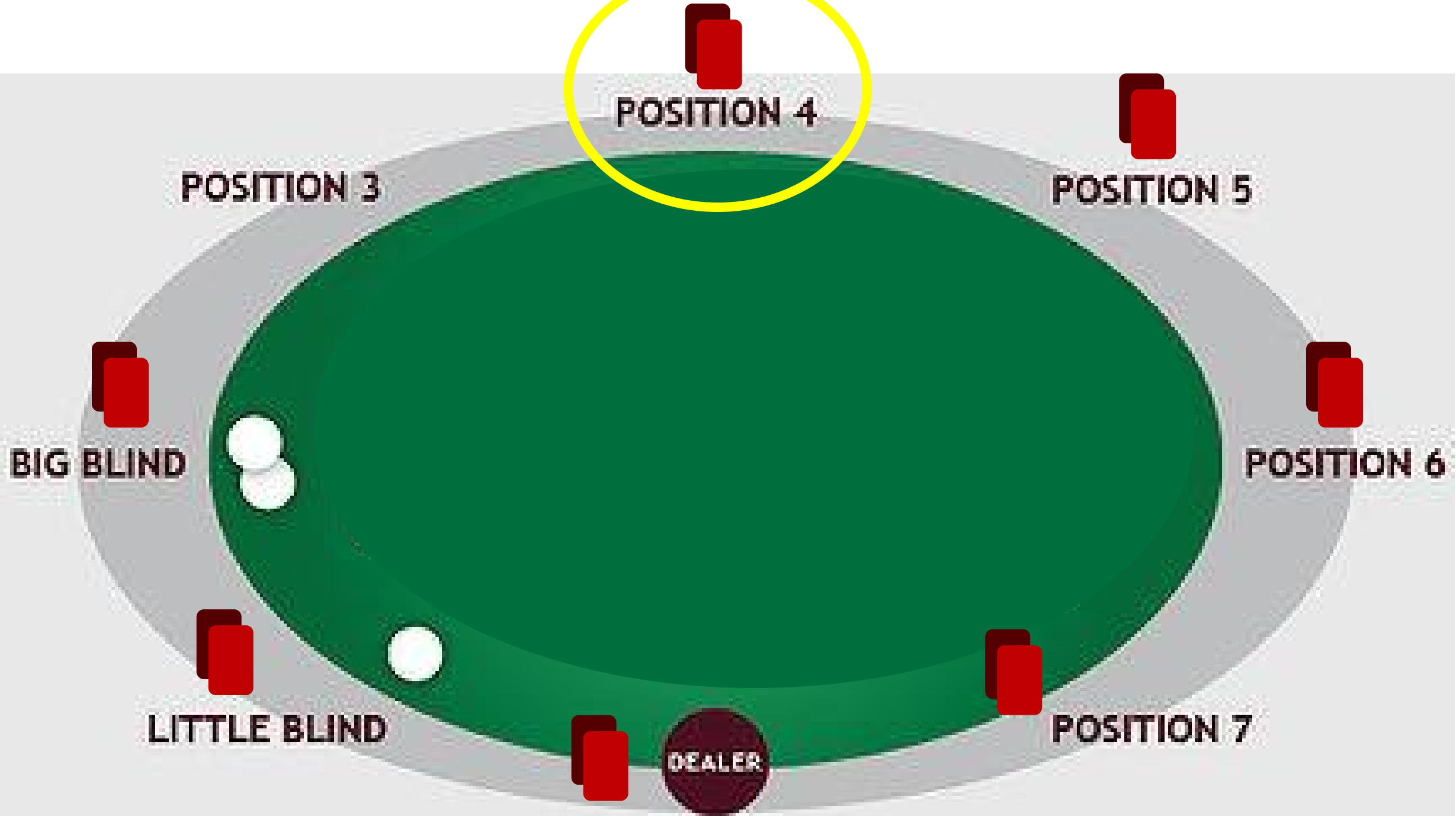


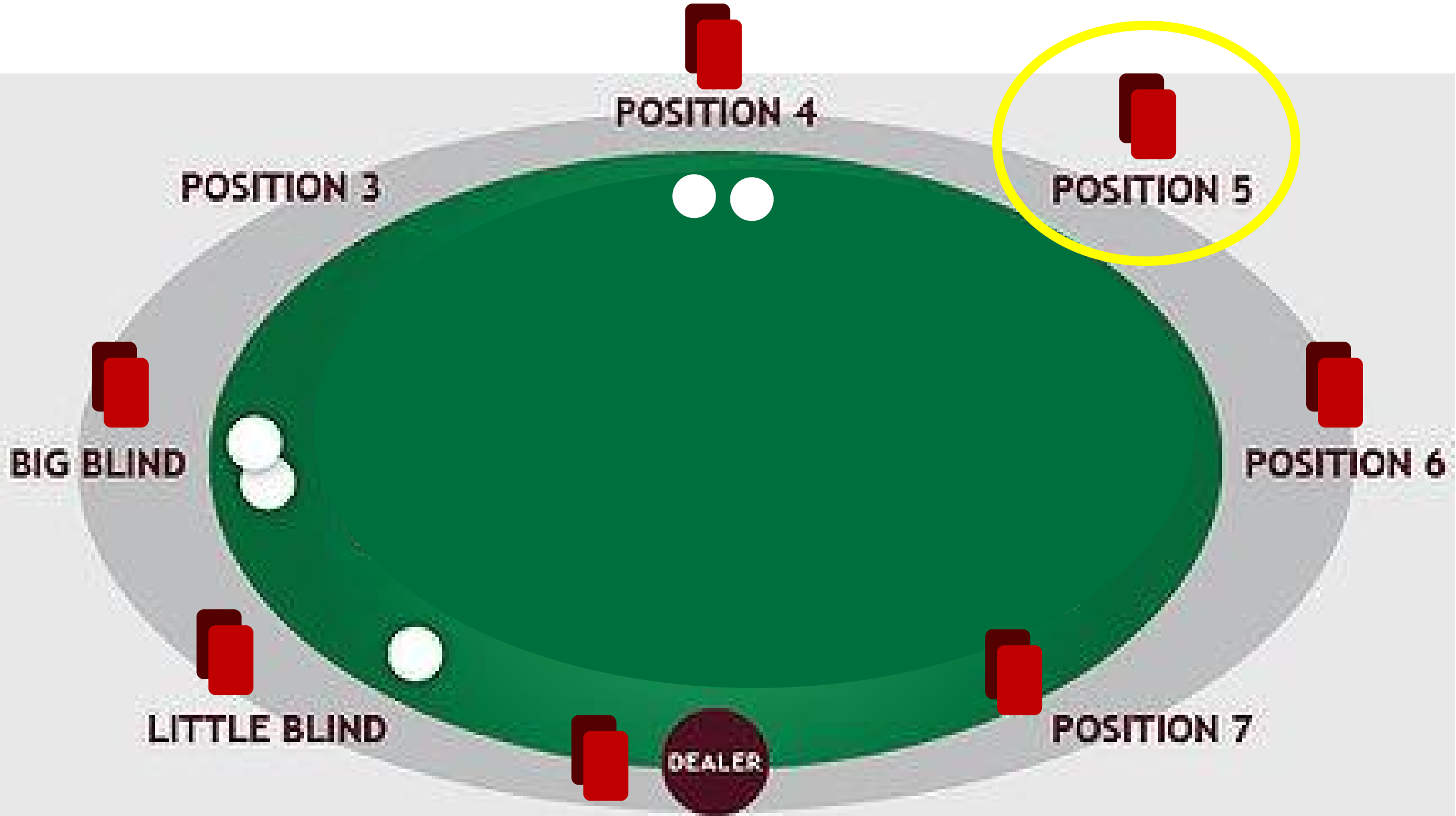


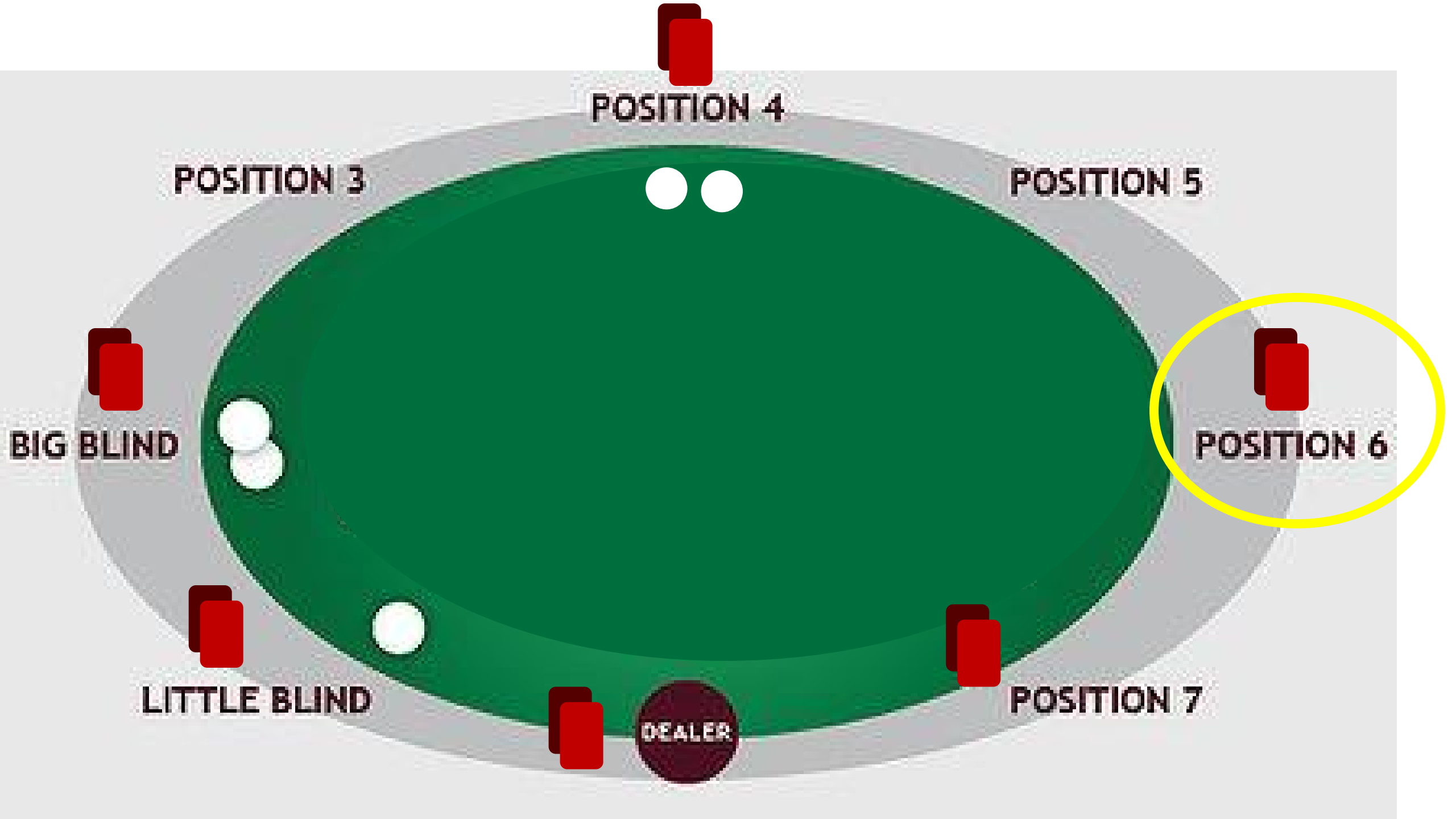


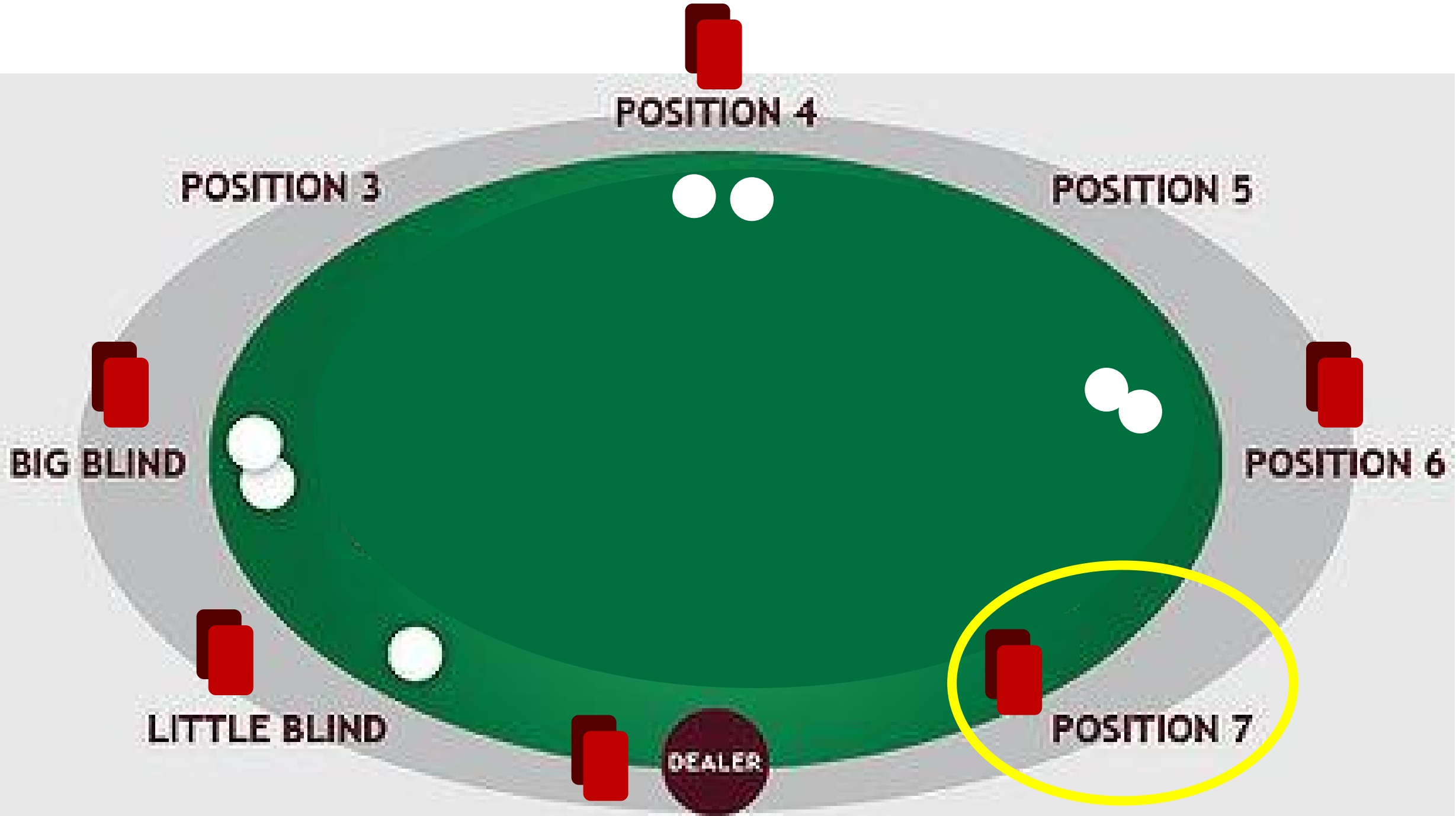


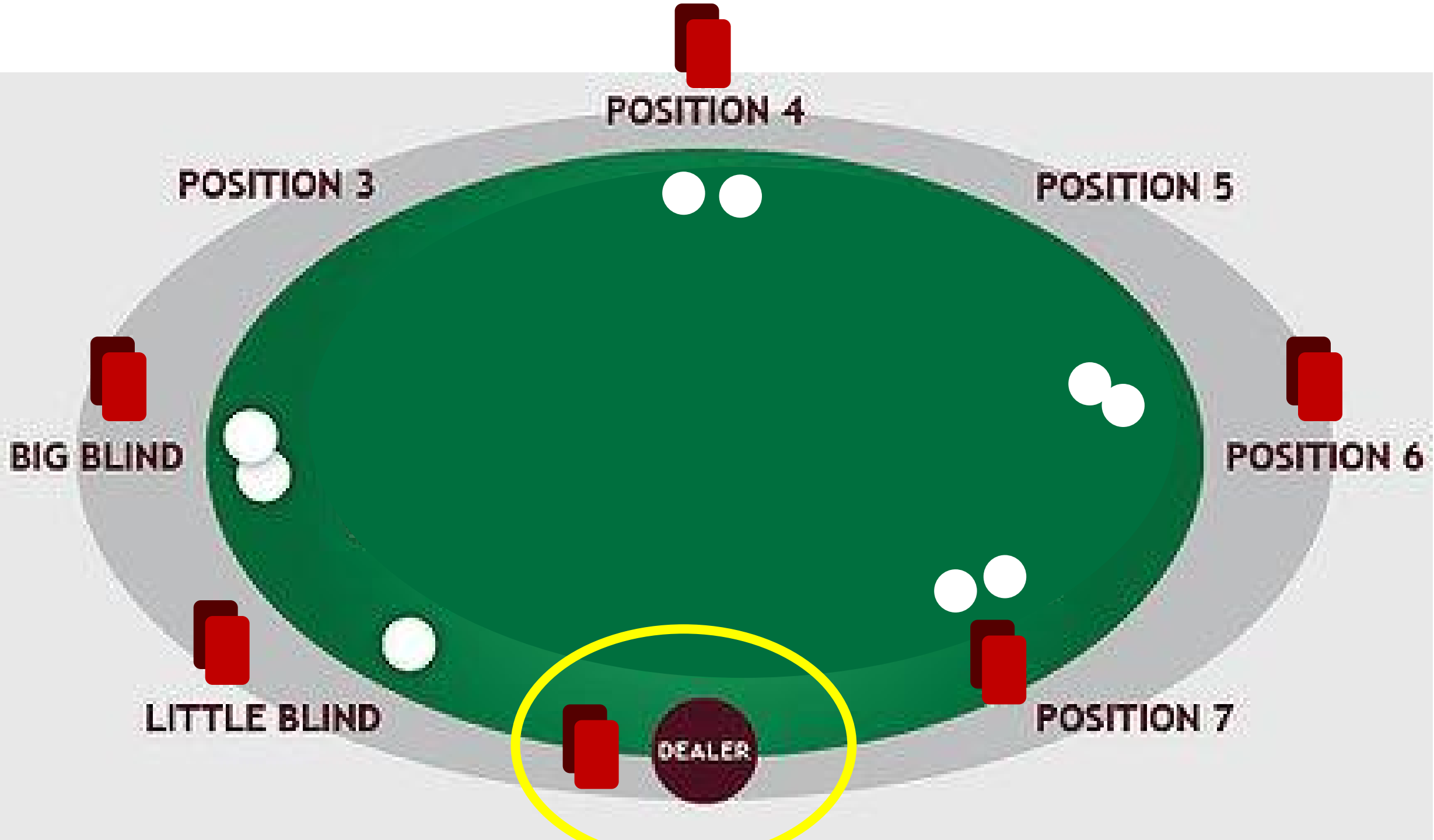


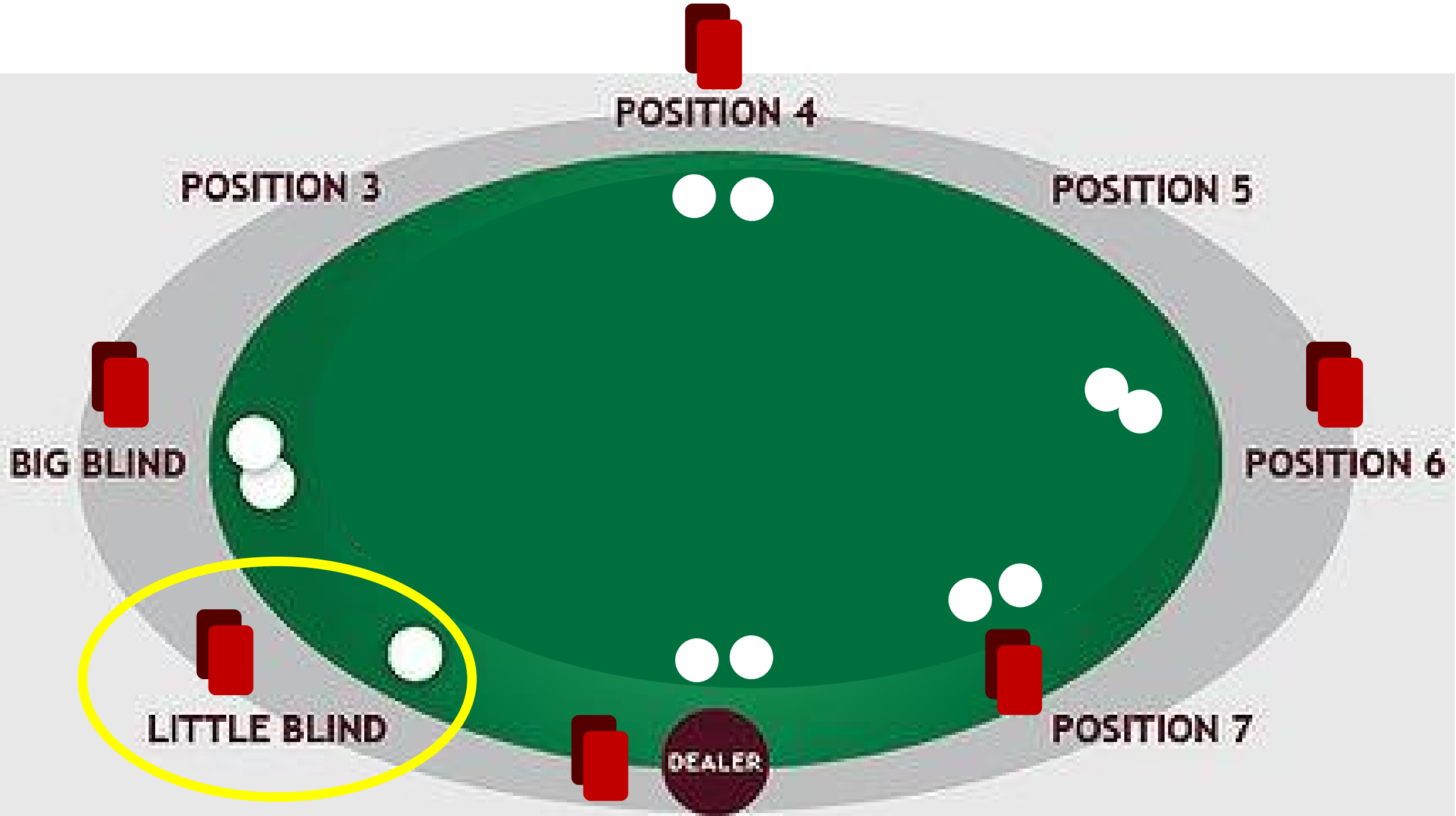


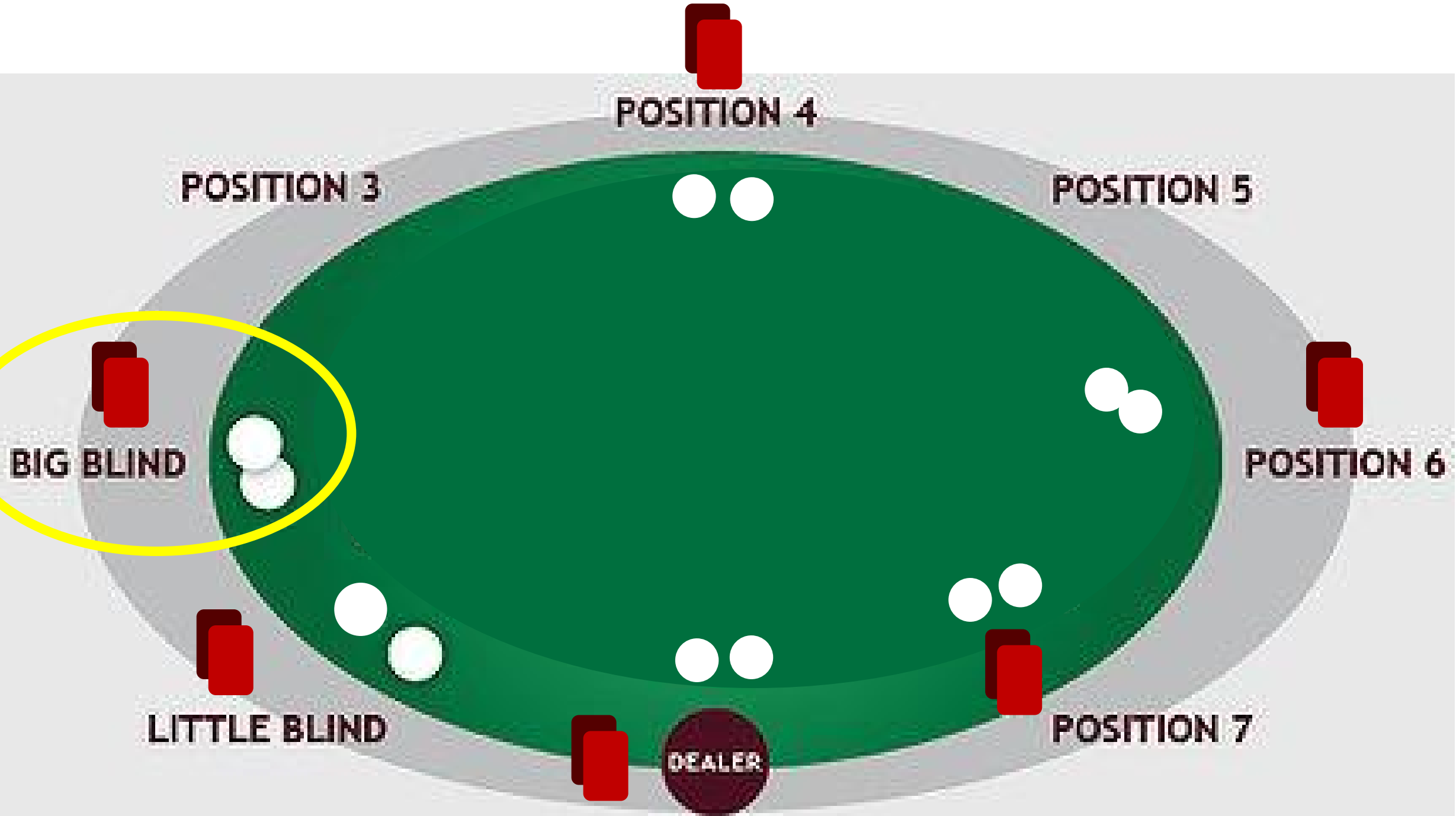


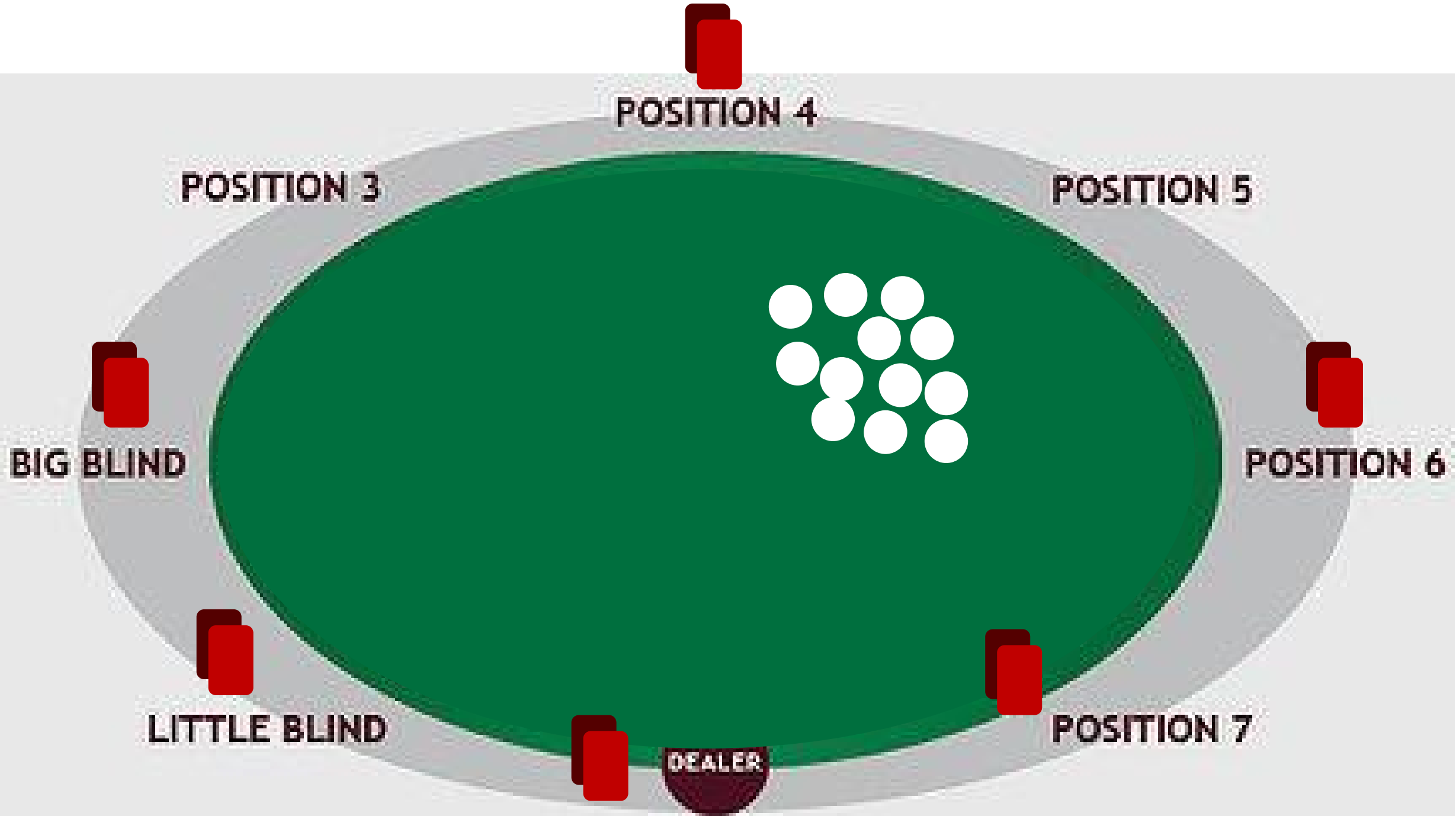


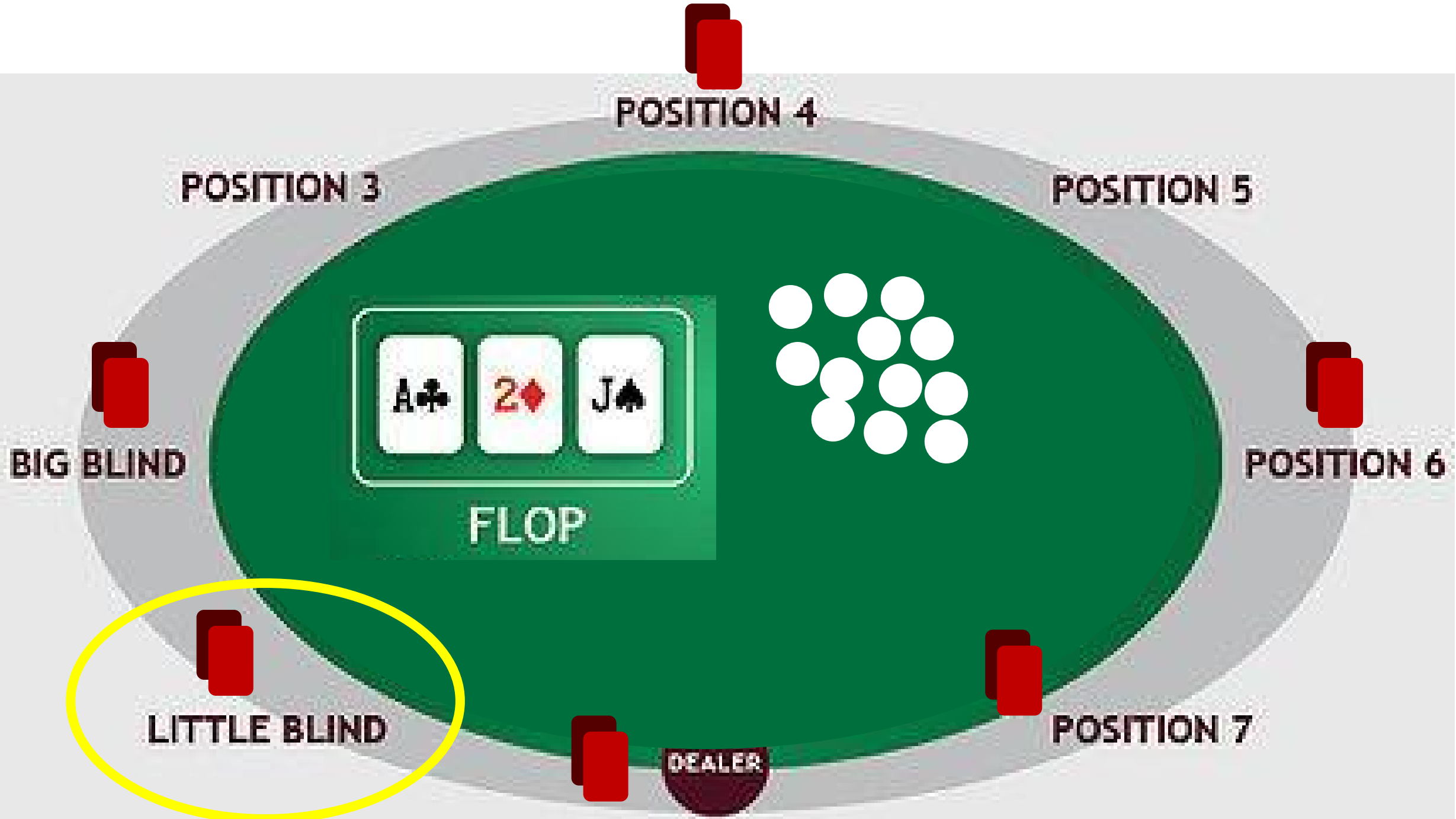












POSITION 4

POSITION 3

POSITION 5

BIG BLIND

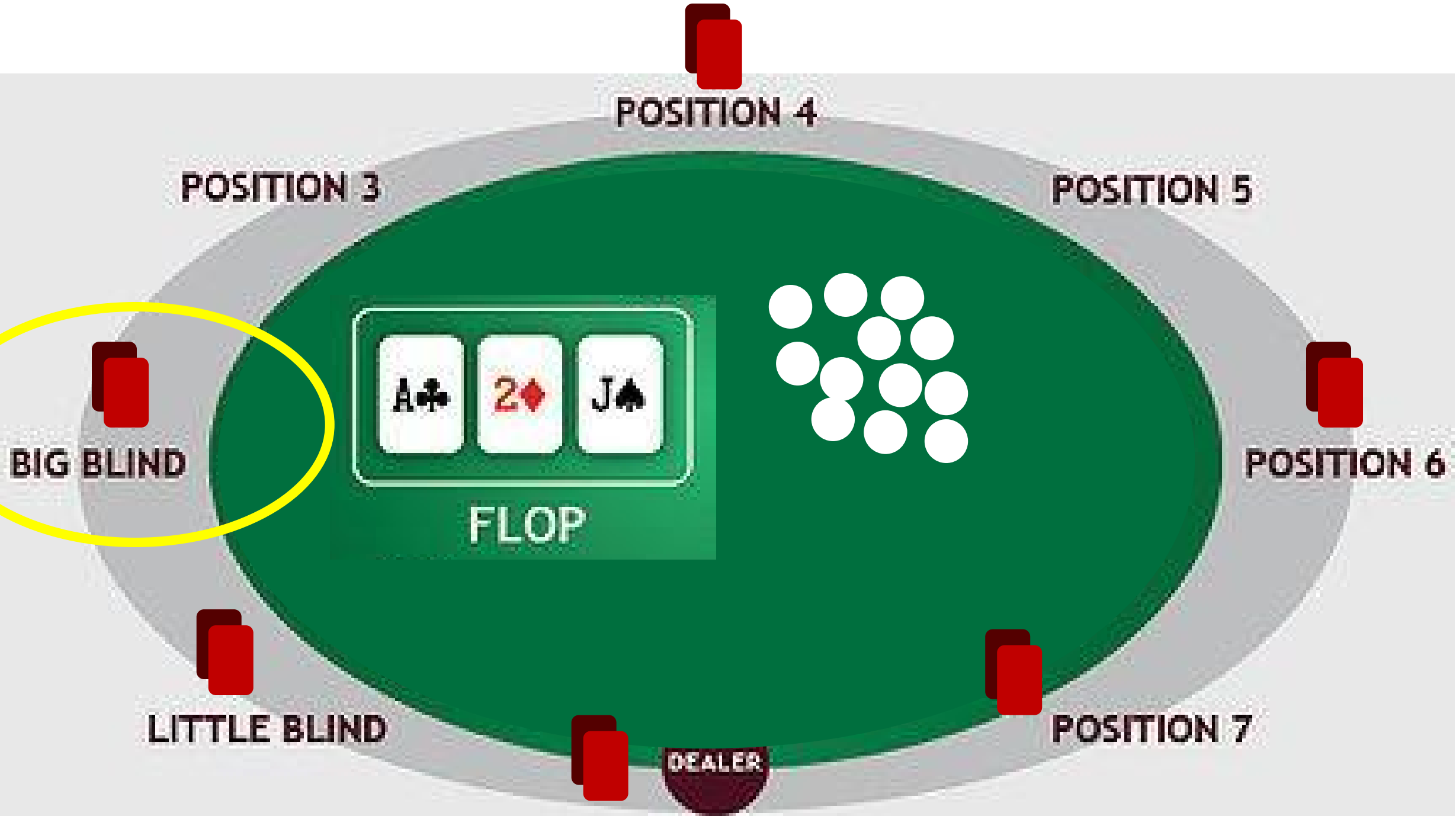
POSITION 6

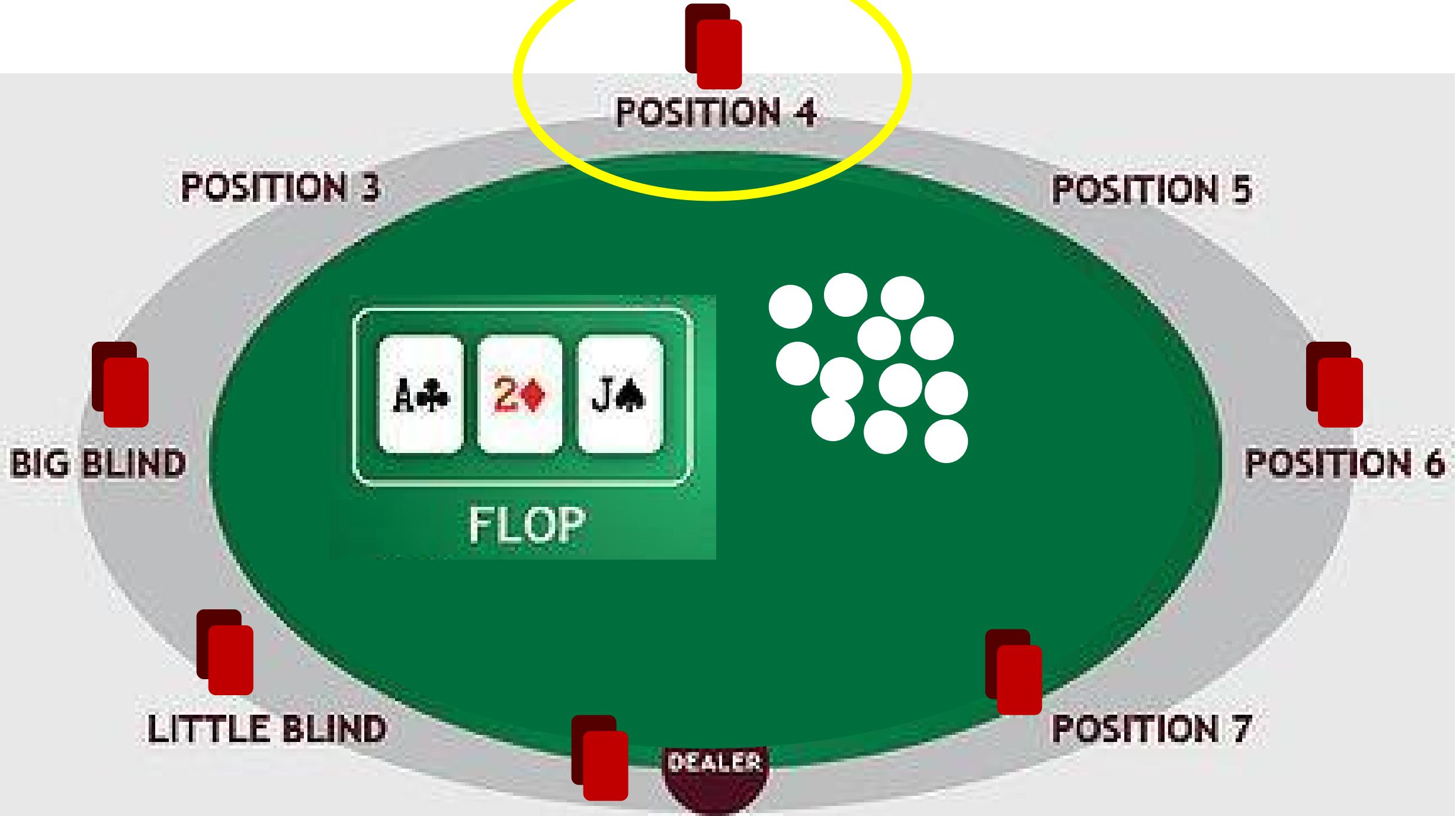
FLOP

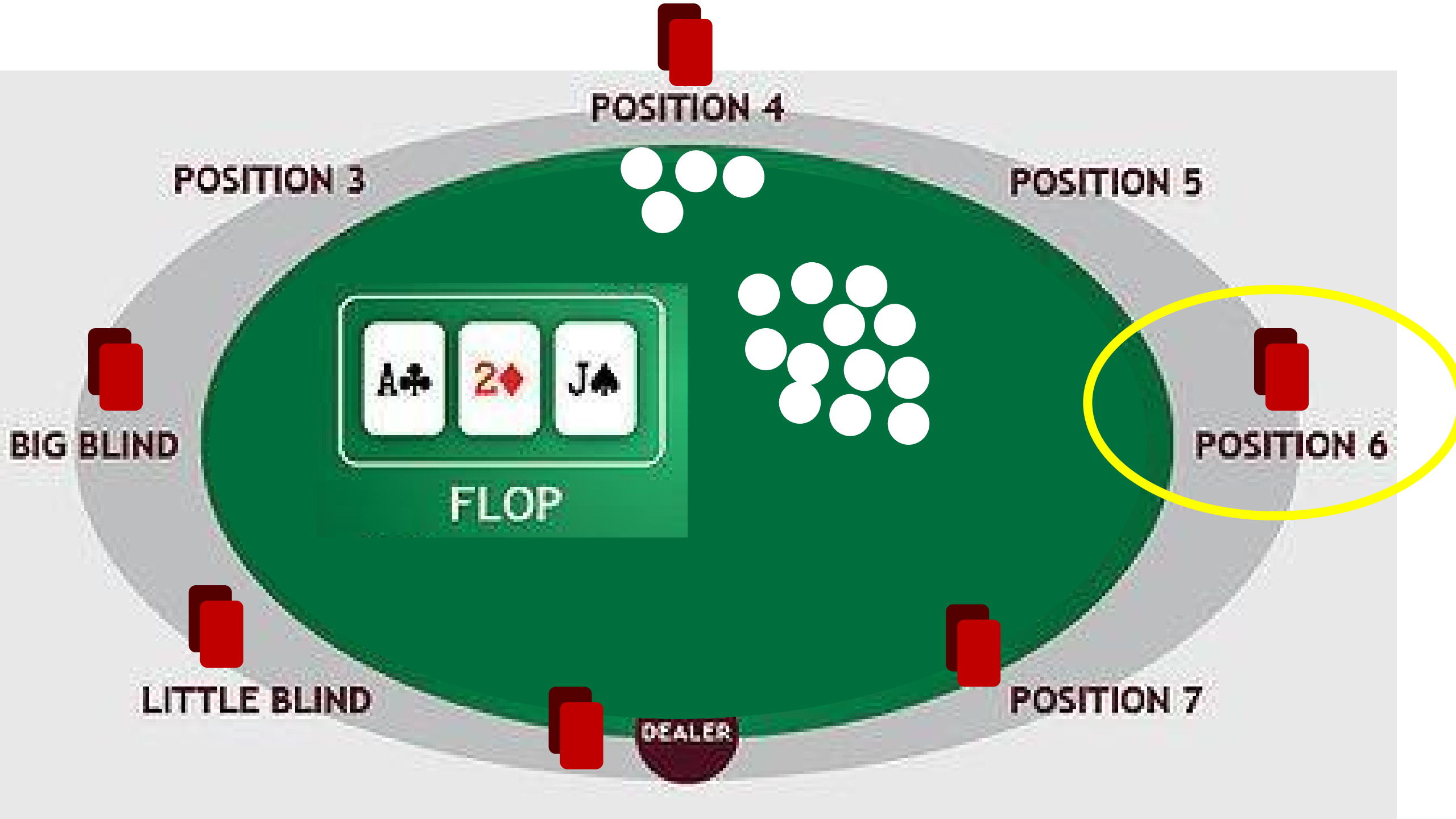
LITTLE BLIND

POSITION 7

DEALER







POSITION 4

POSITION 3

POSITION 5

BIG BLIND

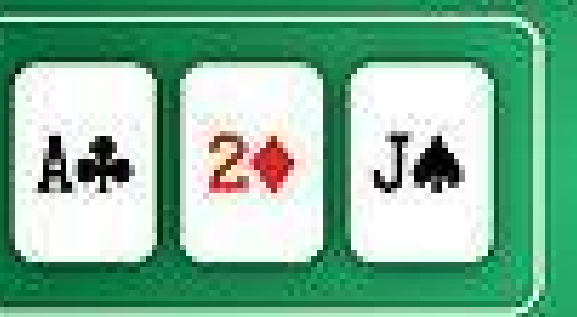
POSITION 6

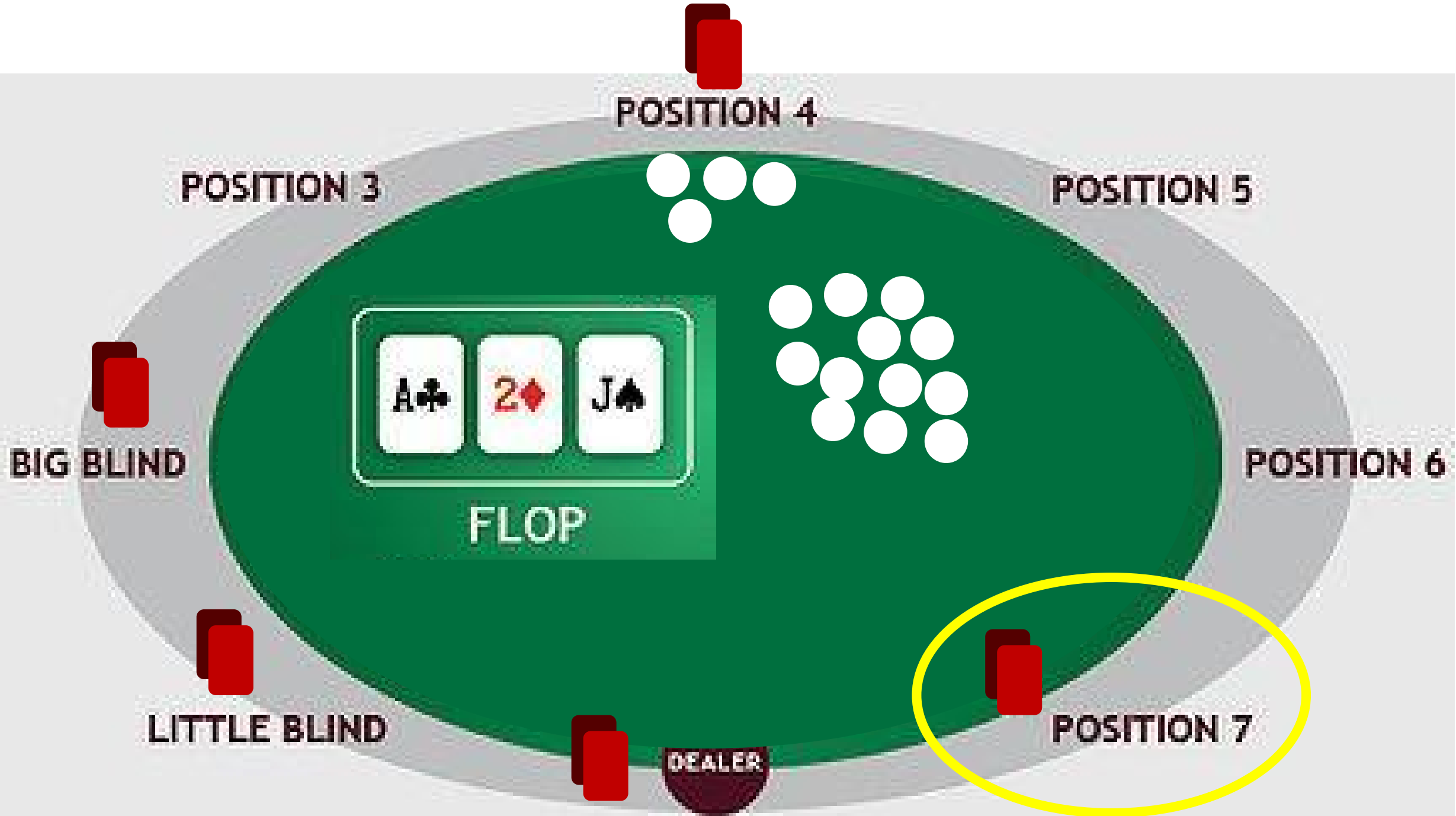
FLOP

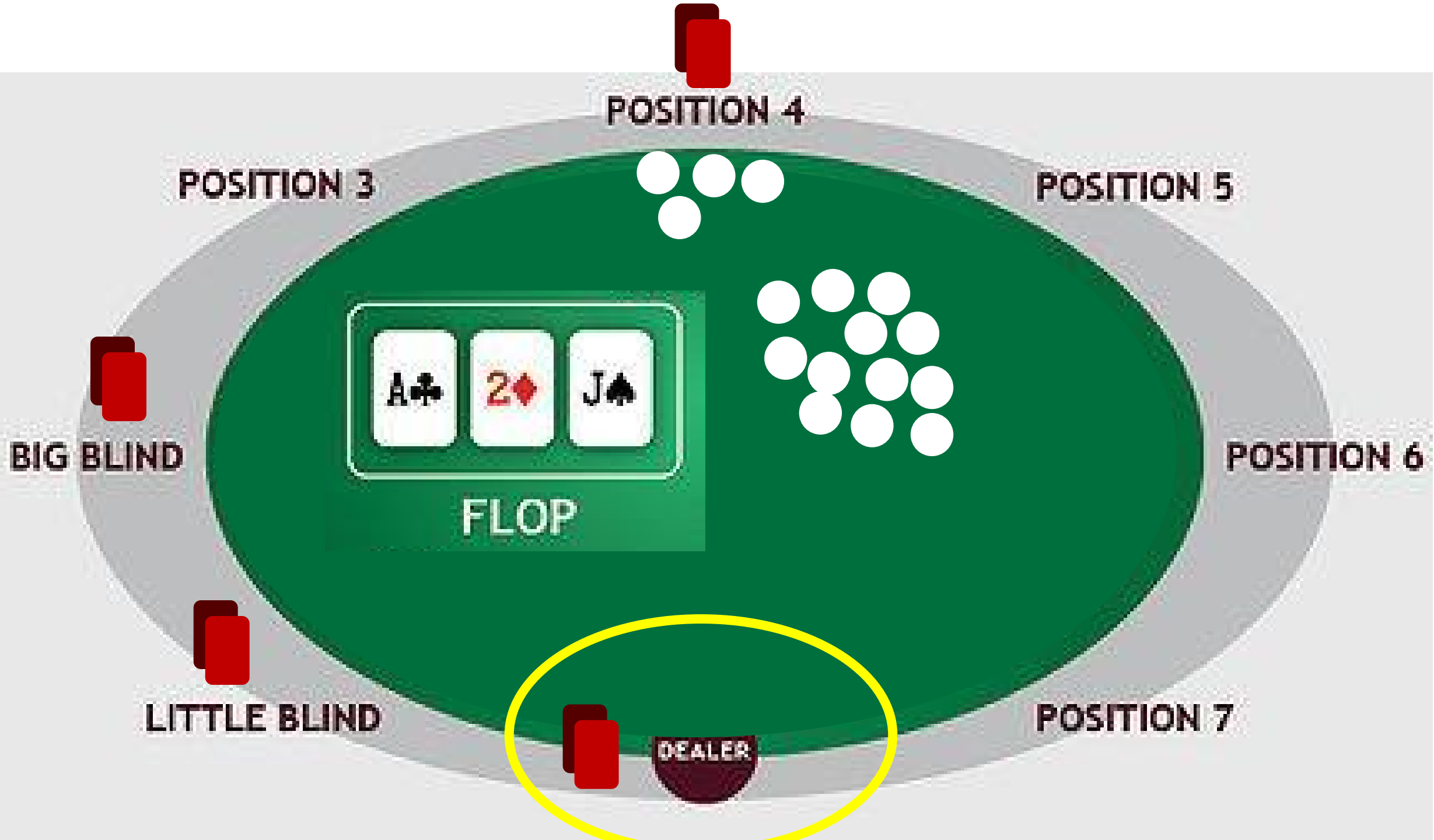
LITTLE BLIND

POSITION 7

DEALER







POSITION 4

POSITION 3

POSITION 5

BIG BLIND

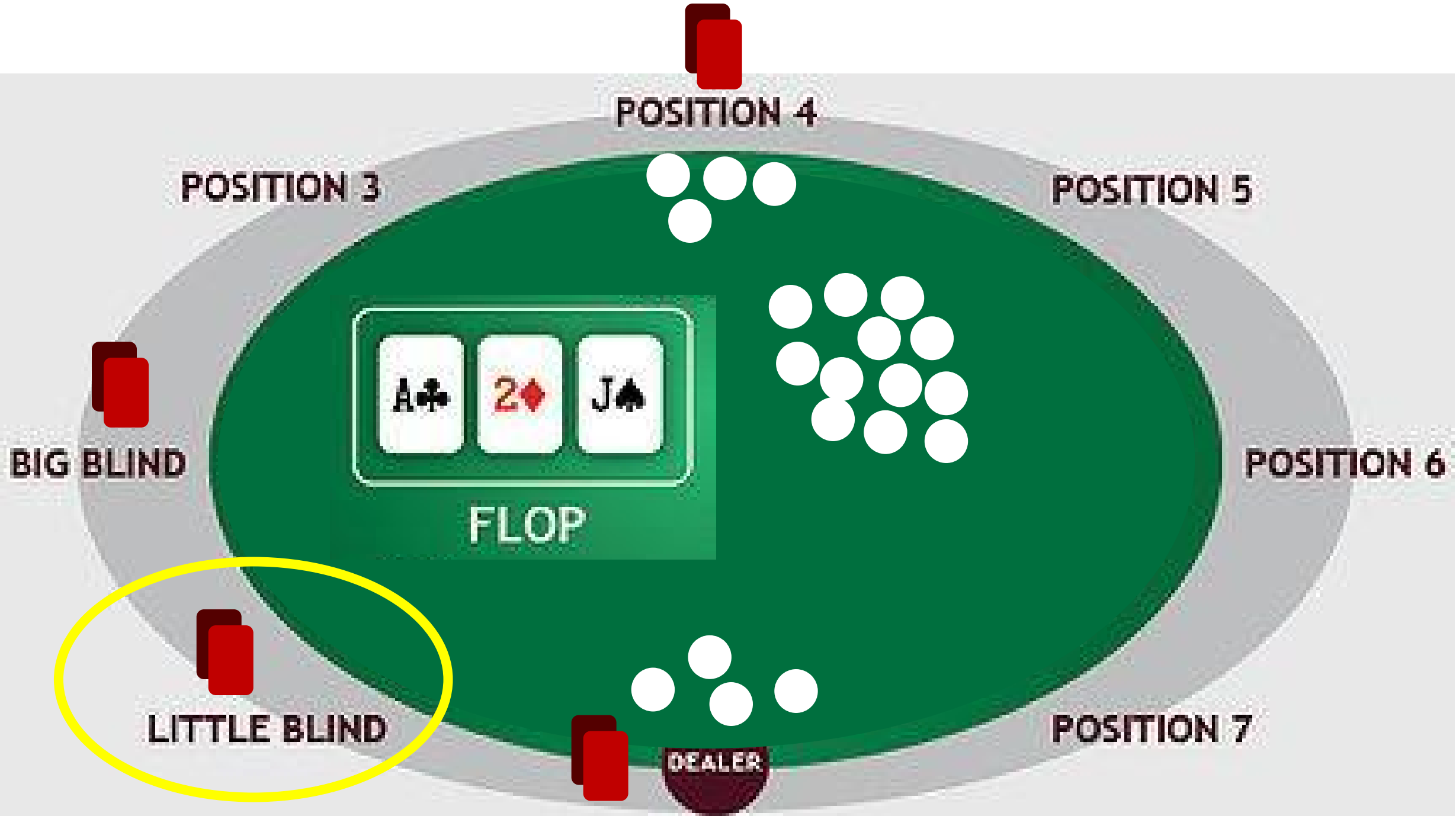
POSITION 6

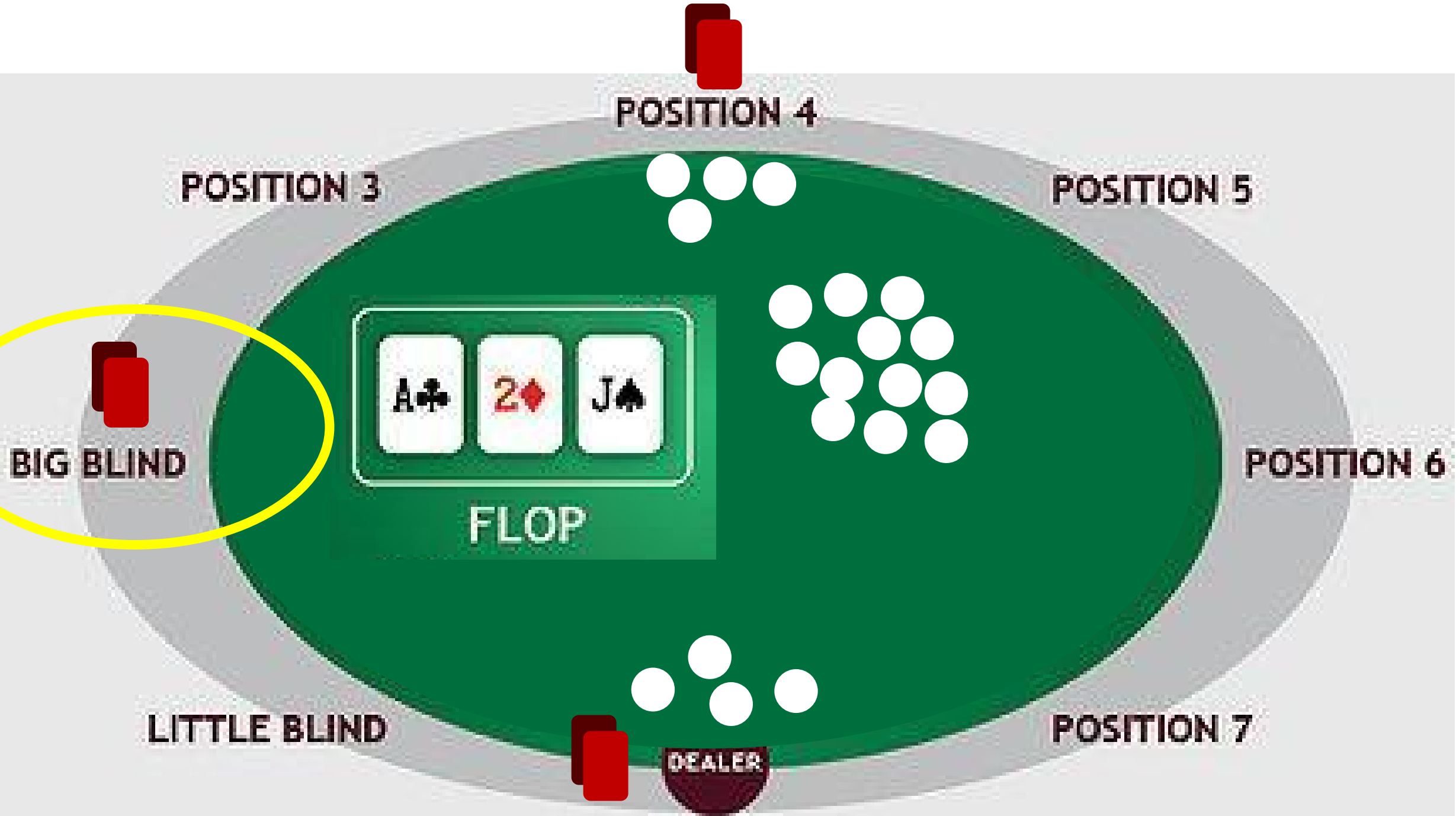
FLOP

LITTLE BLIND

POSITION 7

DEALER





POSITION 4

POSITION 3

POSITION 5

POSITION 6

POSITION 7

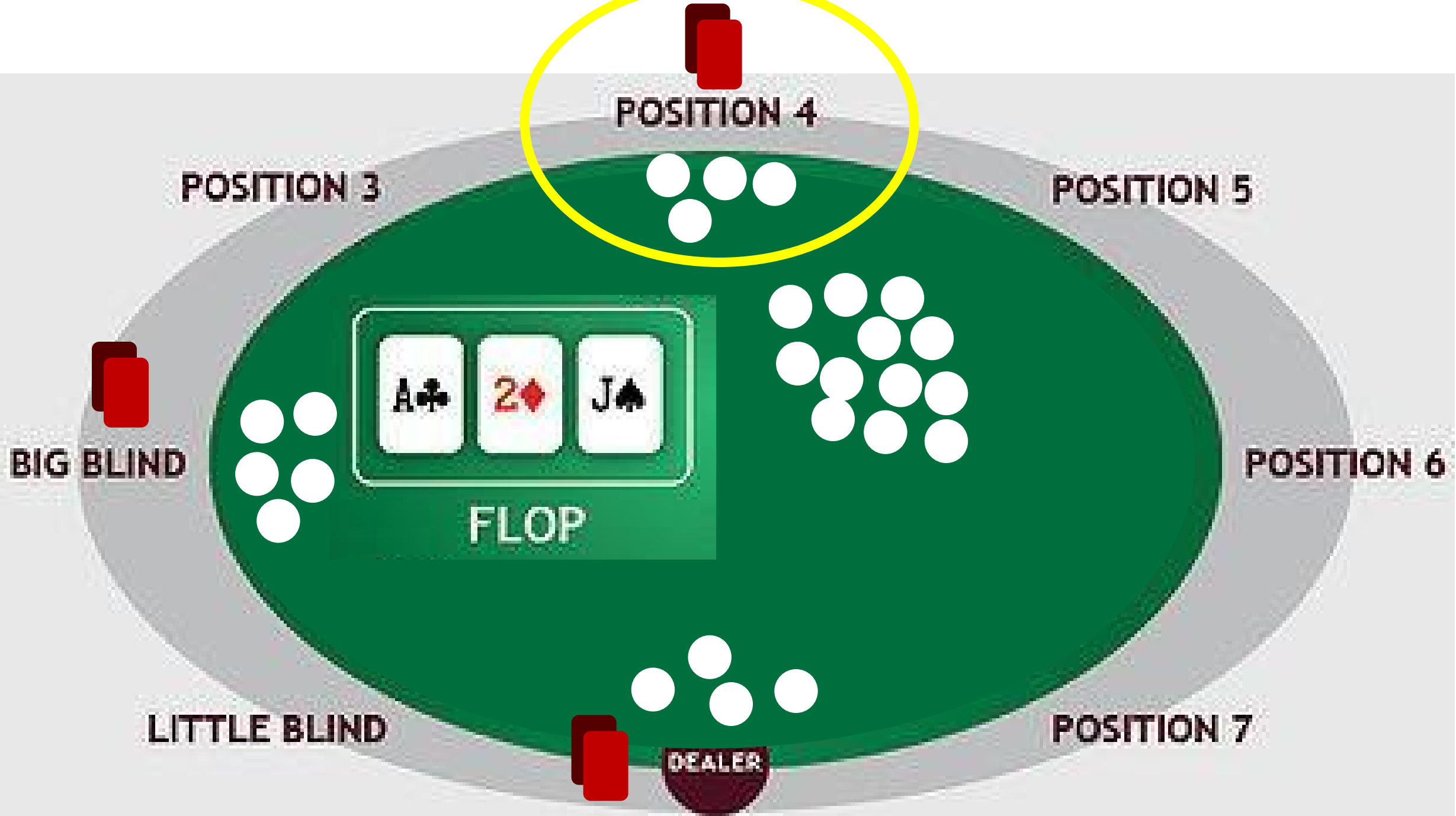
LITTLE BLIND

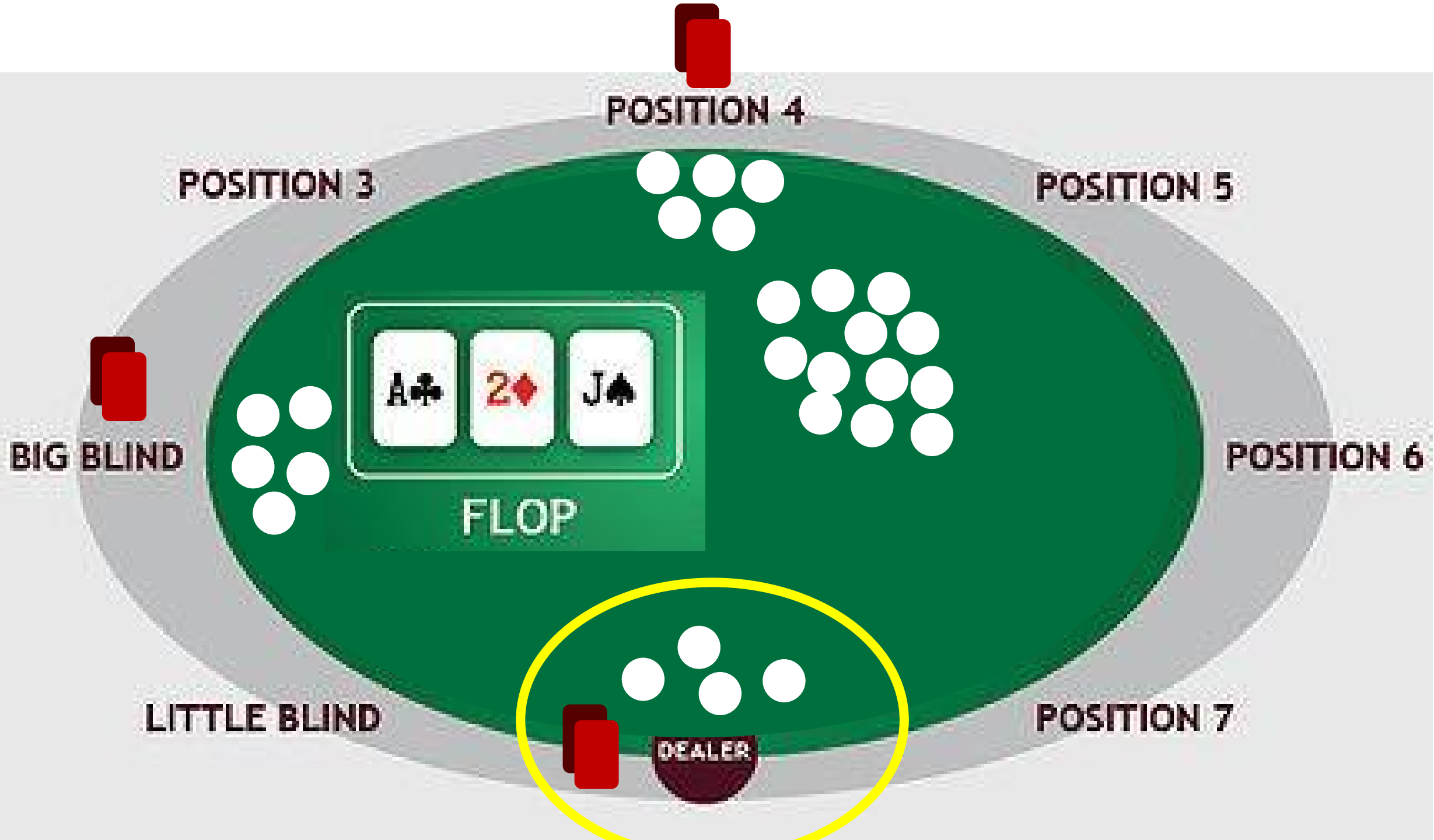
DEALER

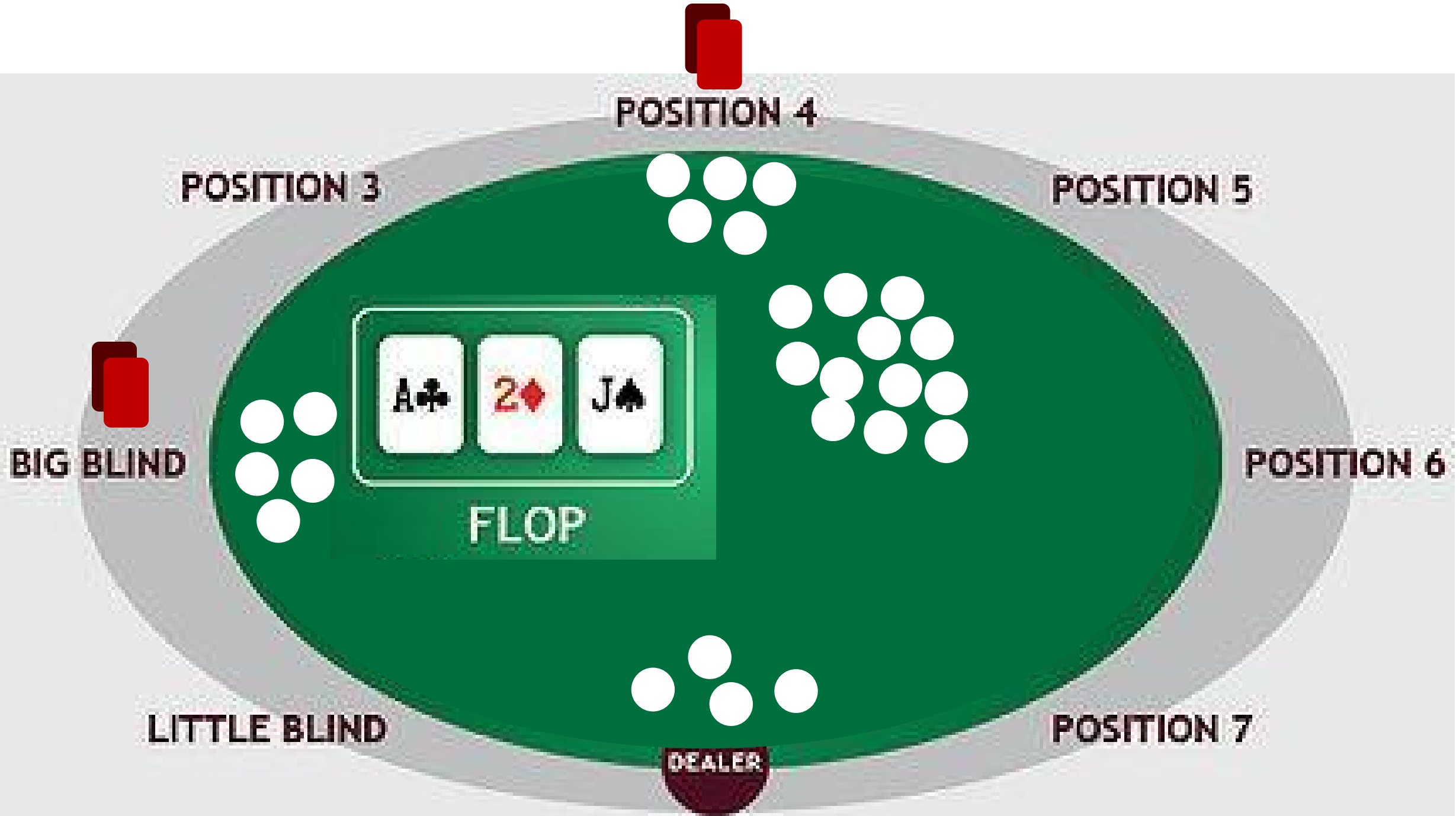
FLOP

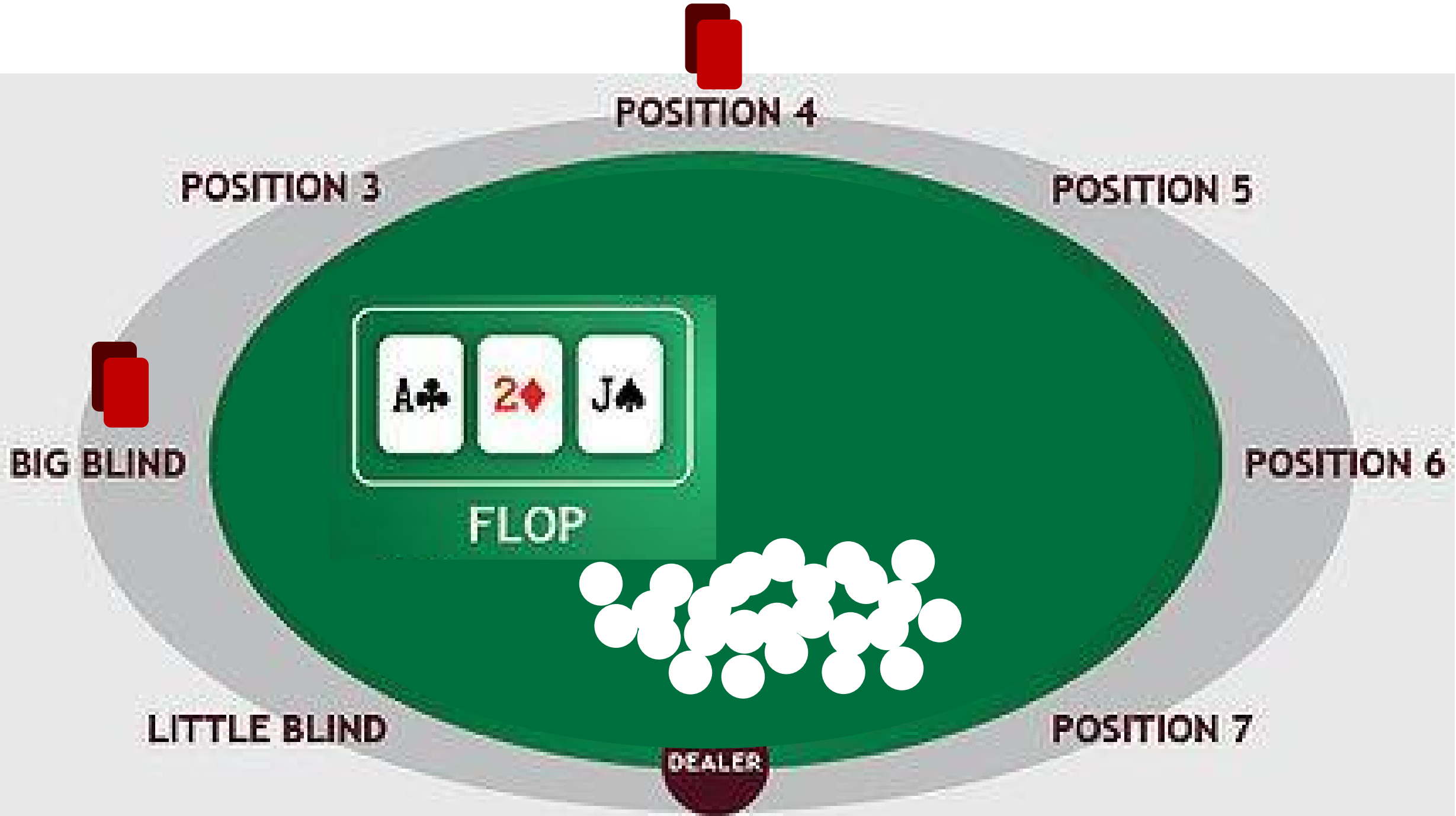


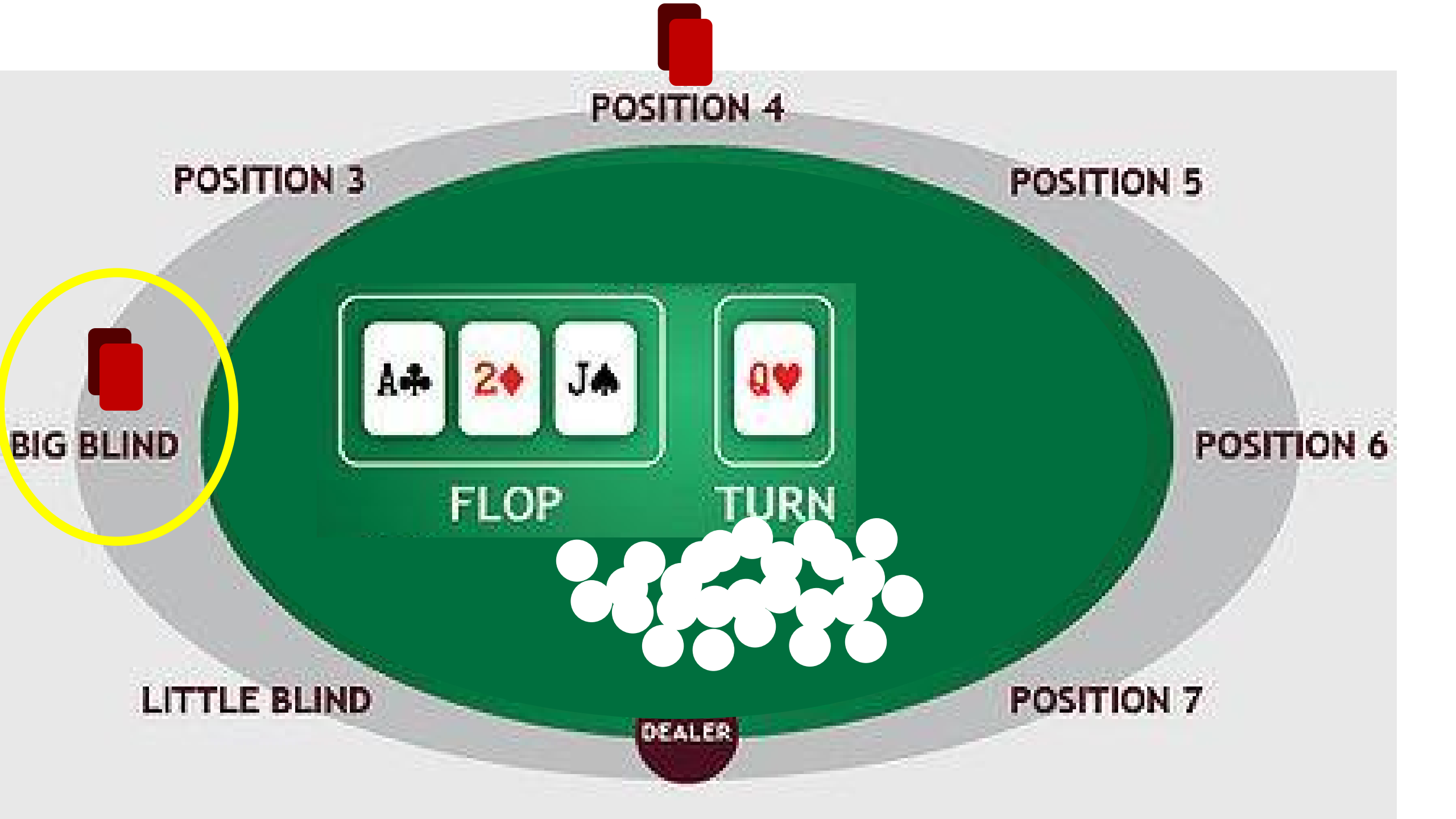
BIG BLIND

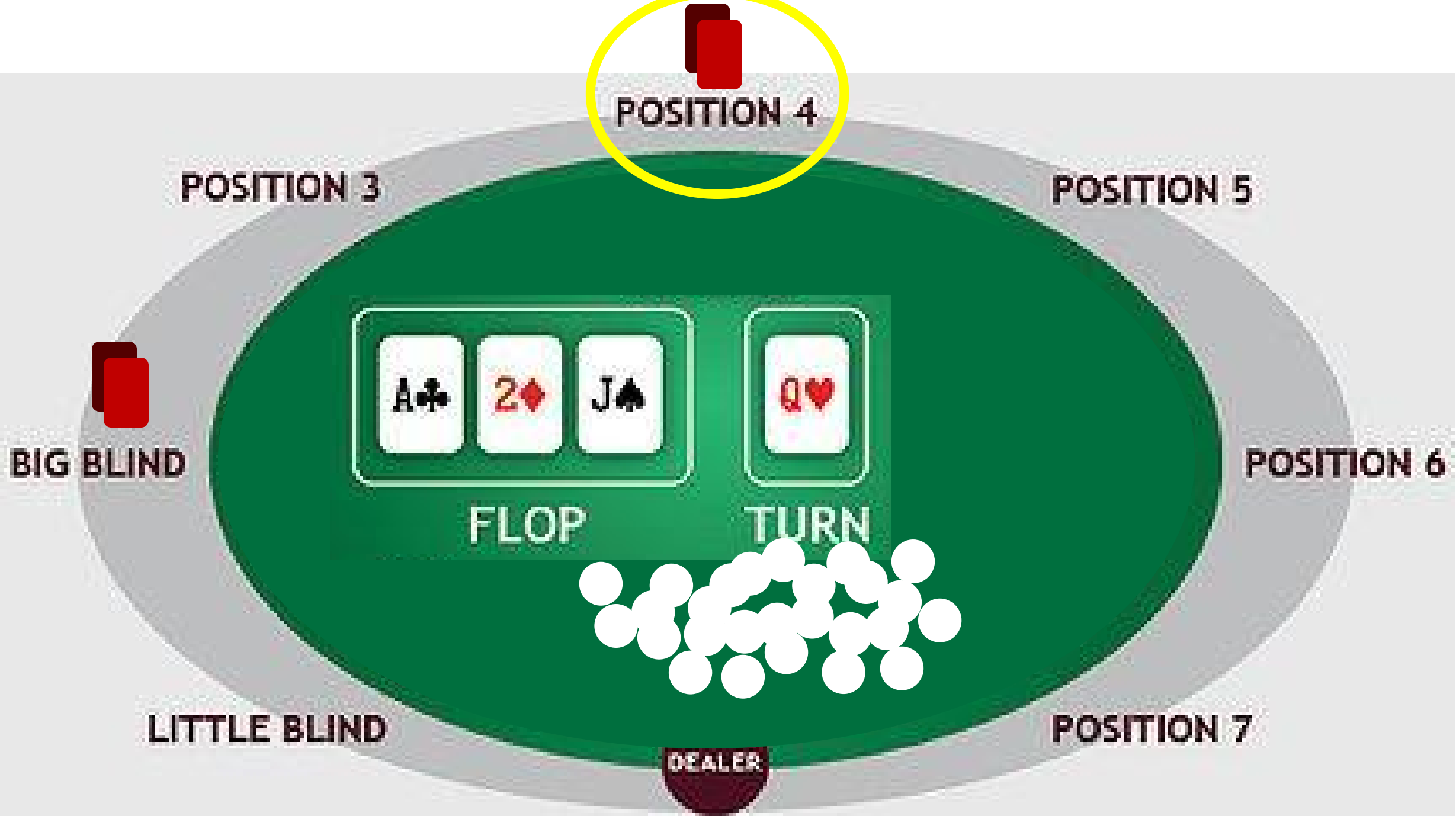


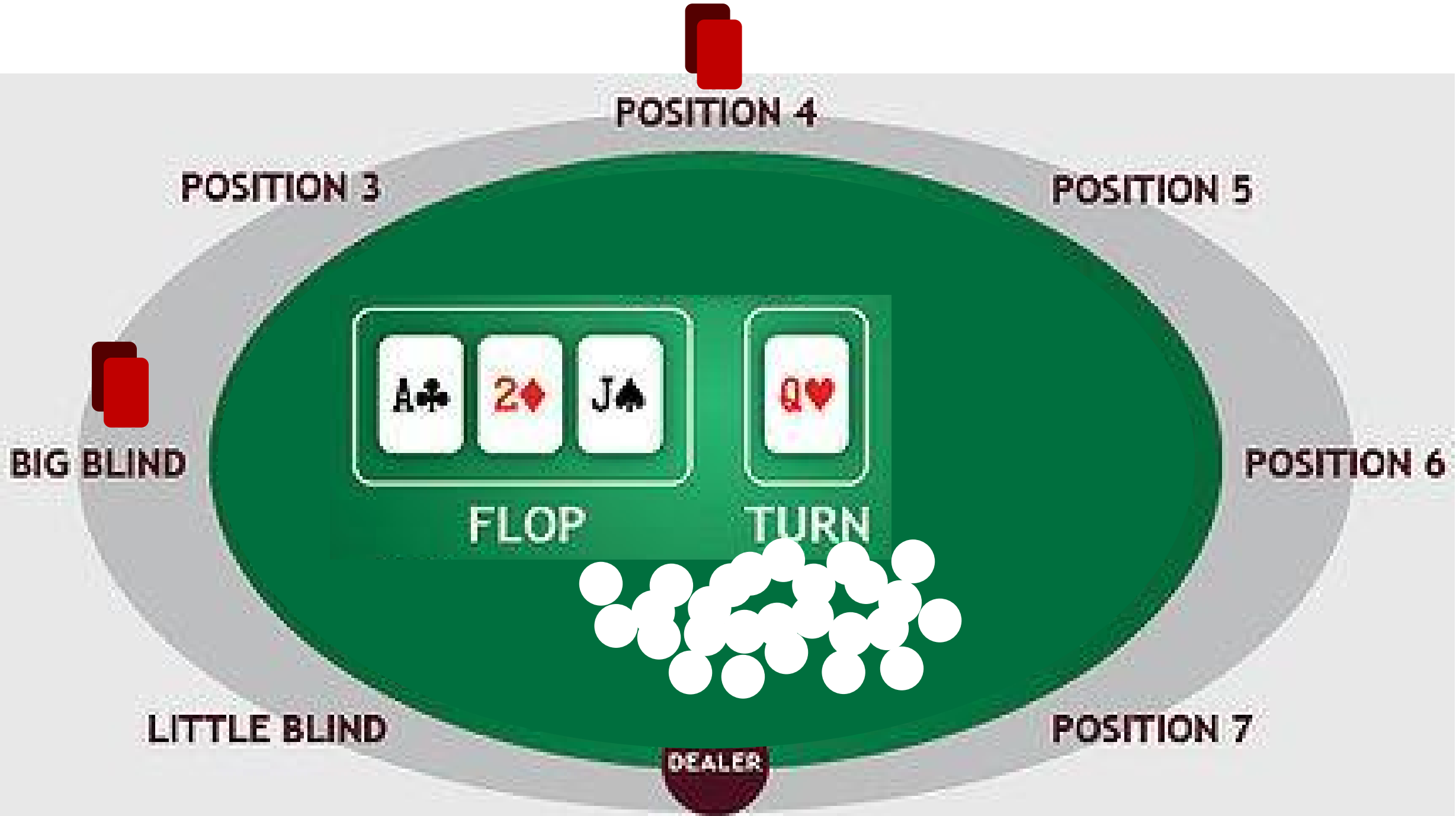


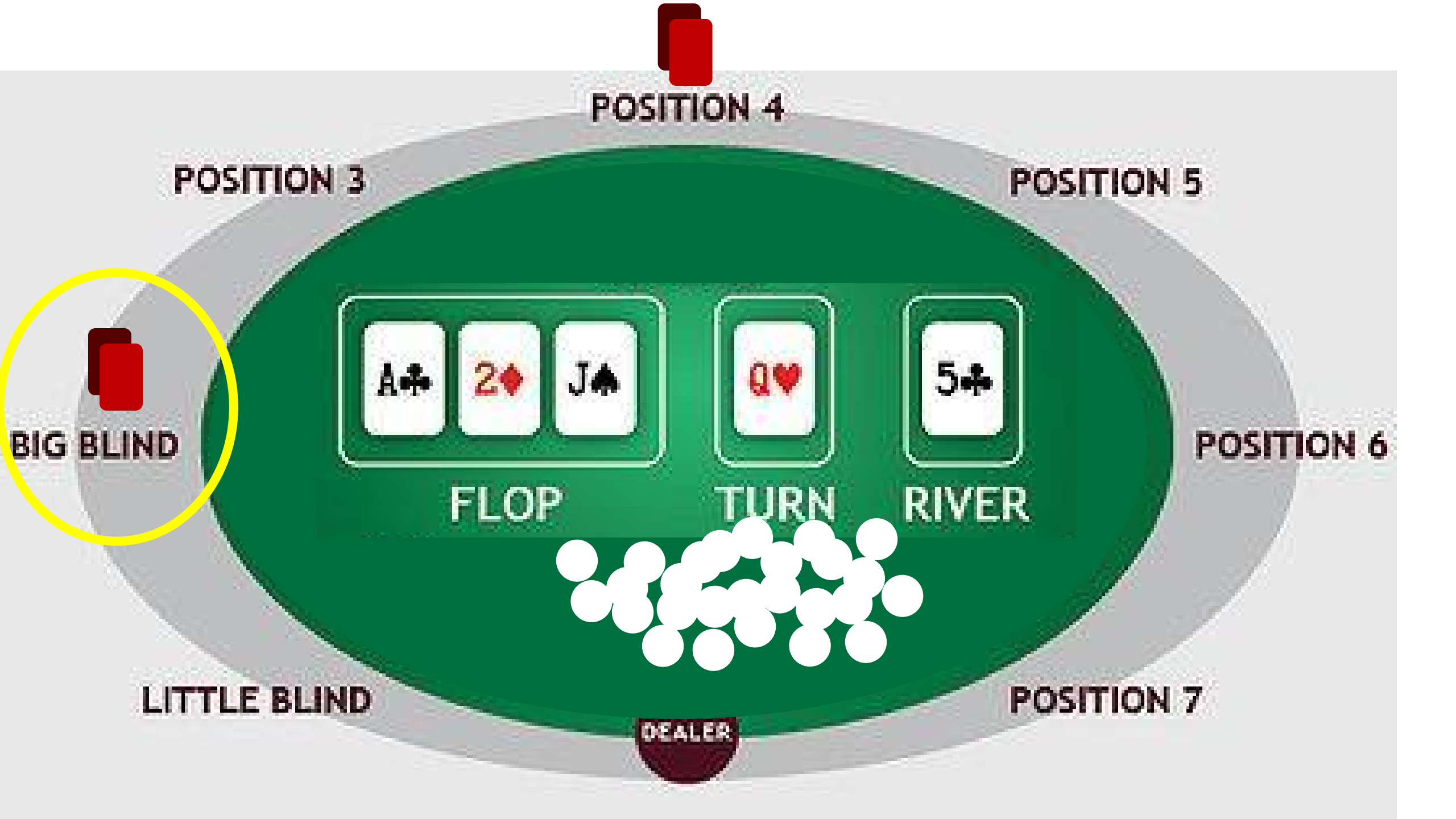


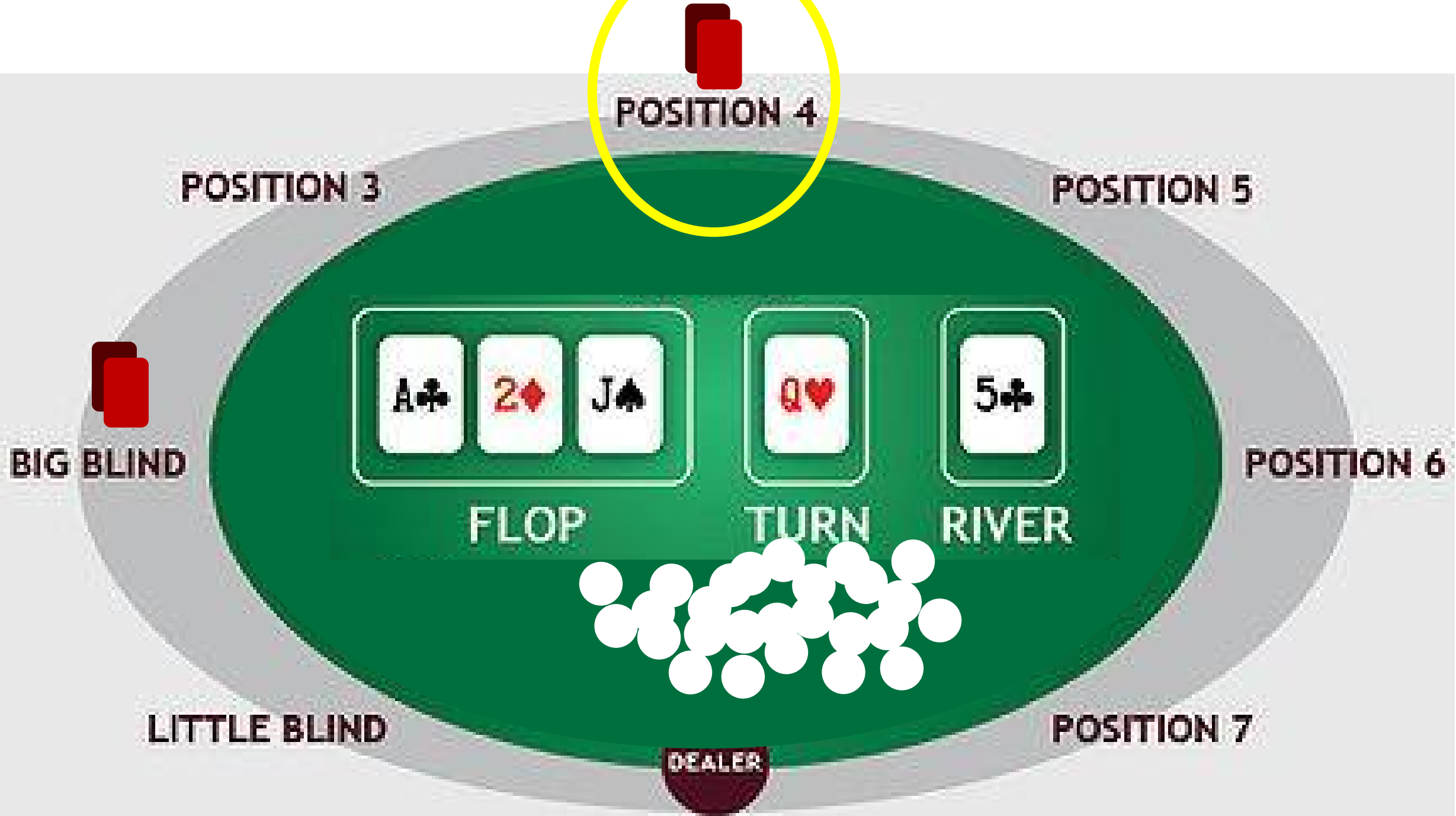


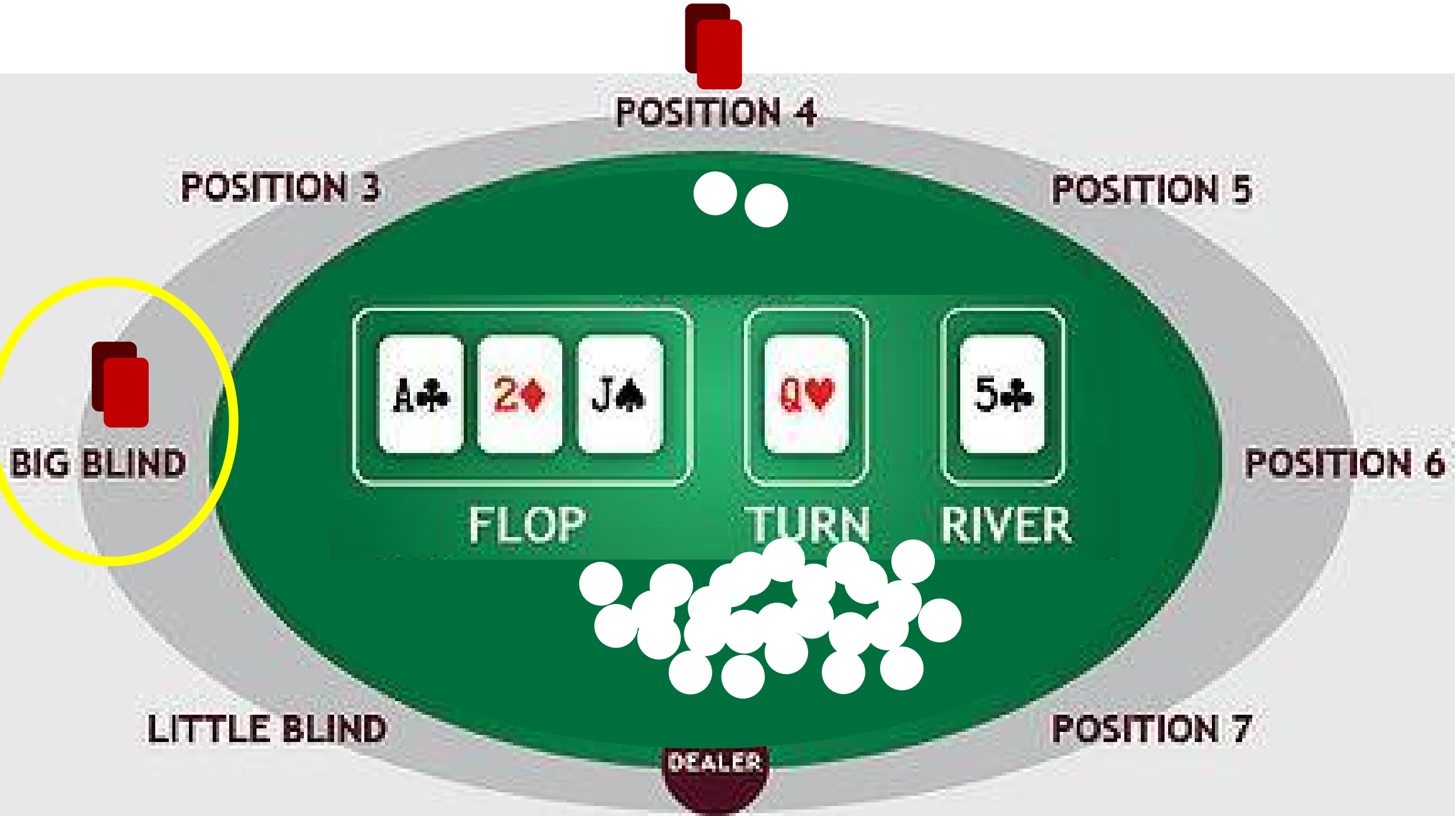


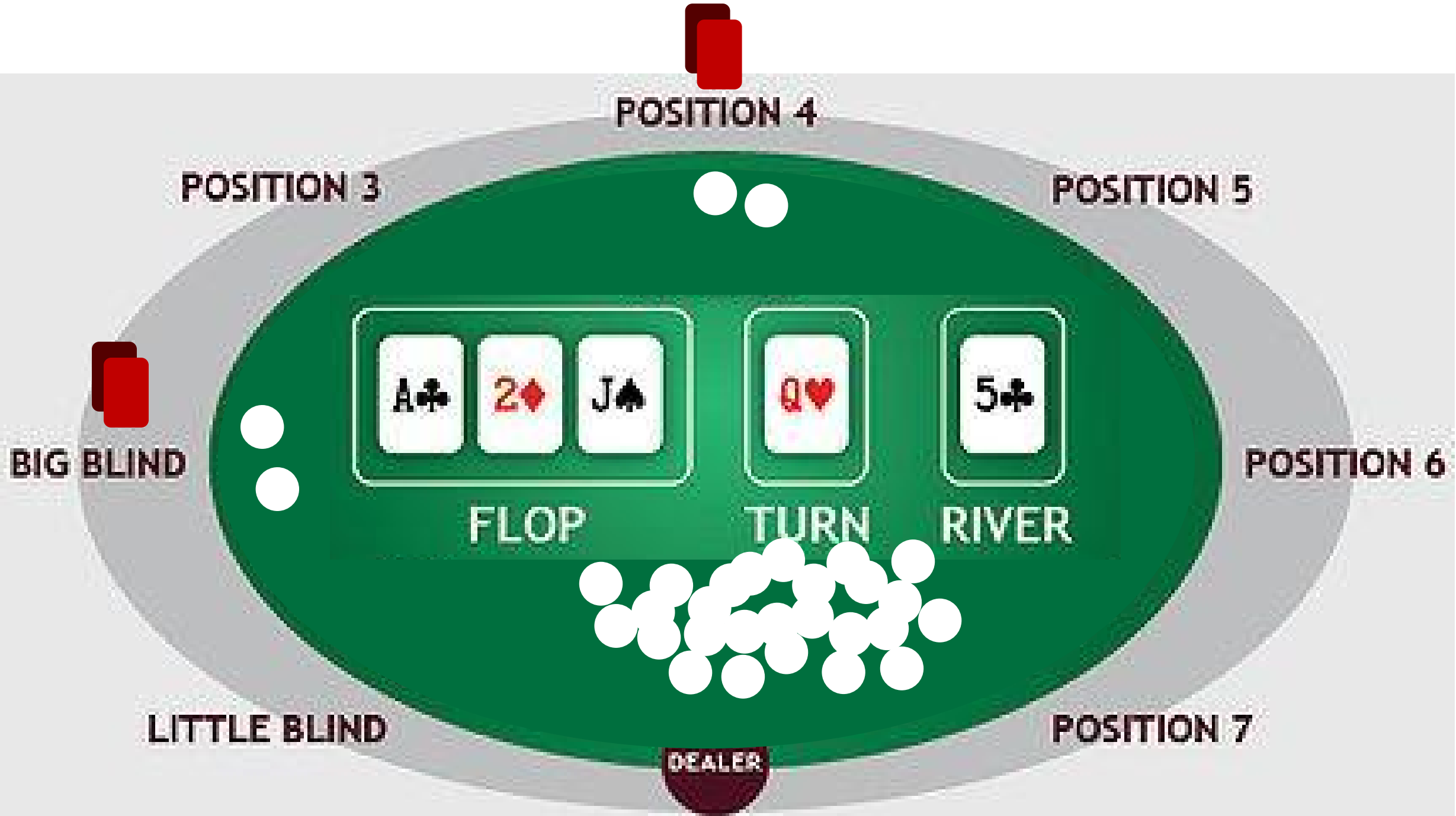


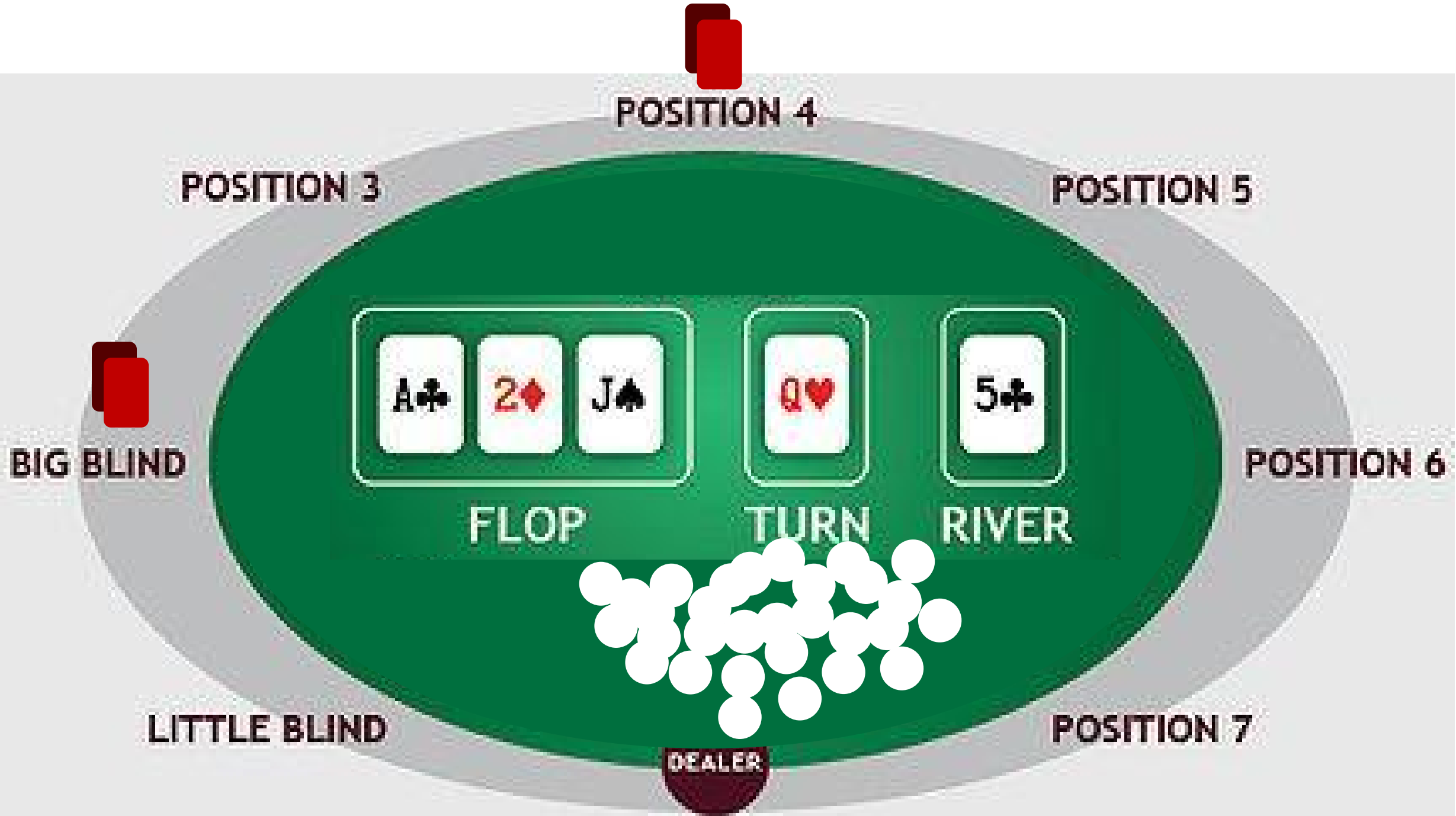




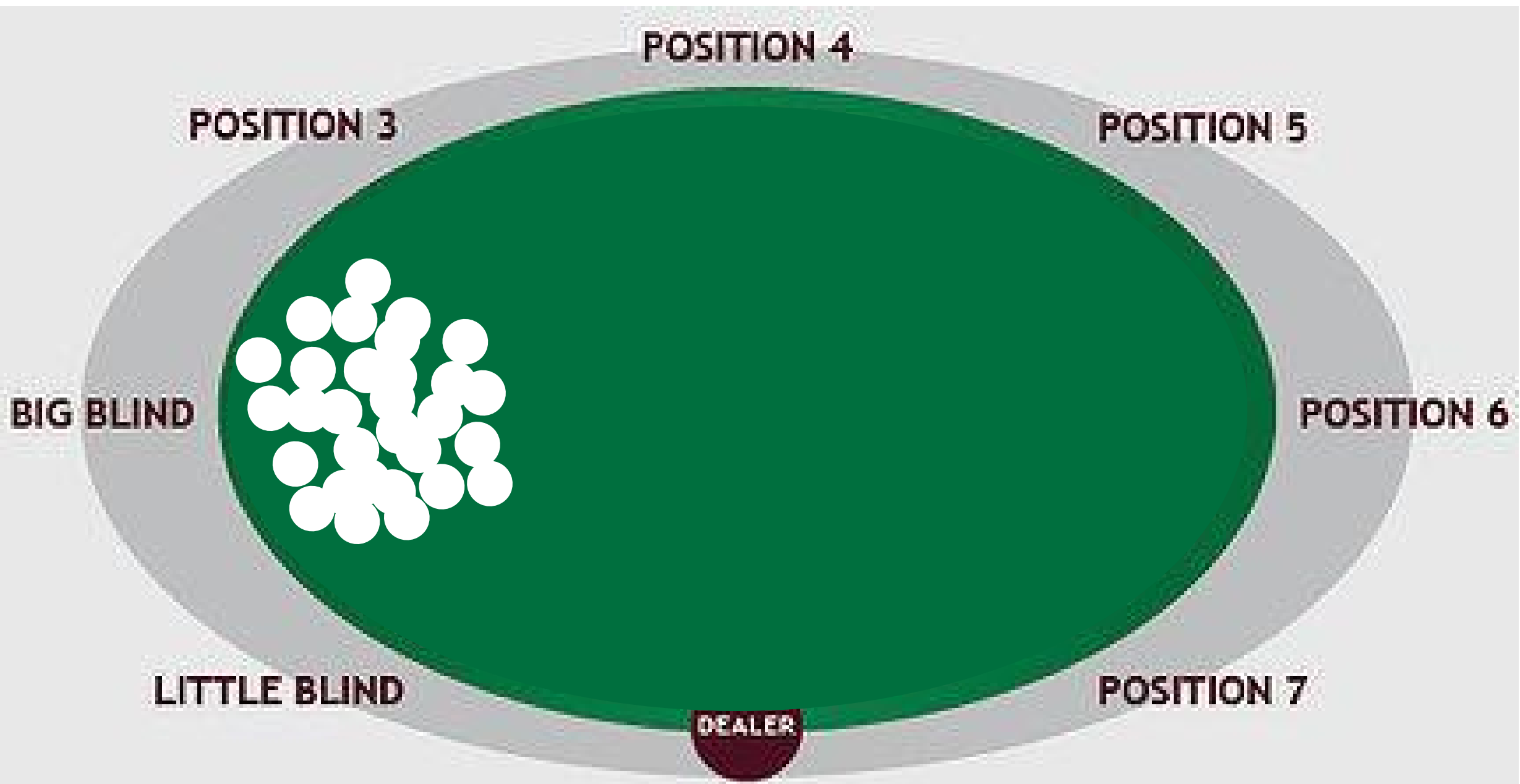


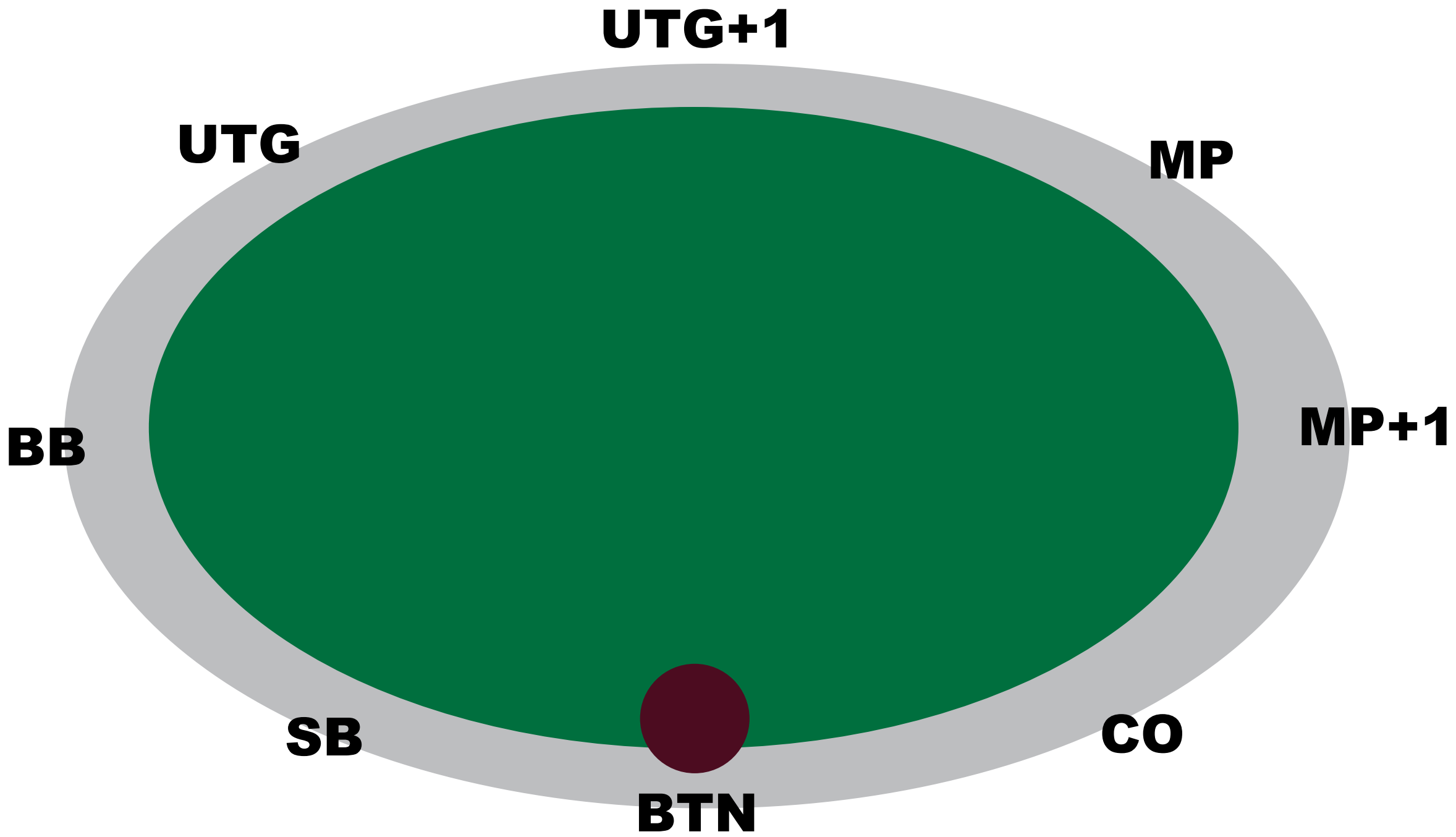


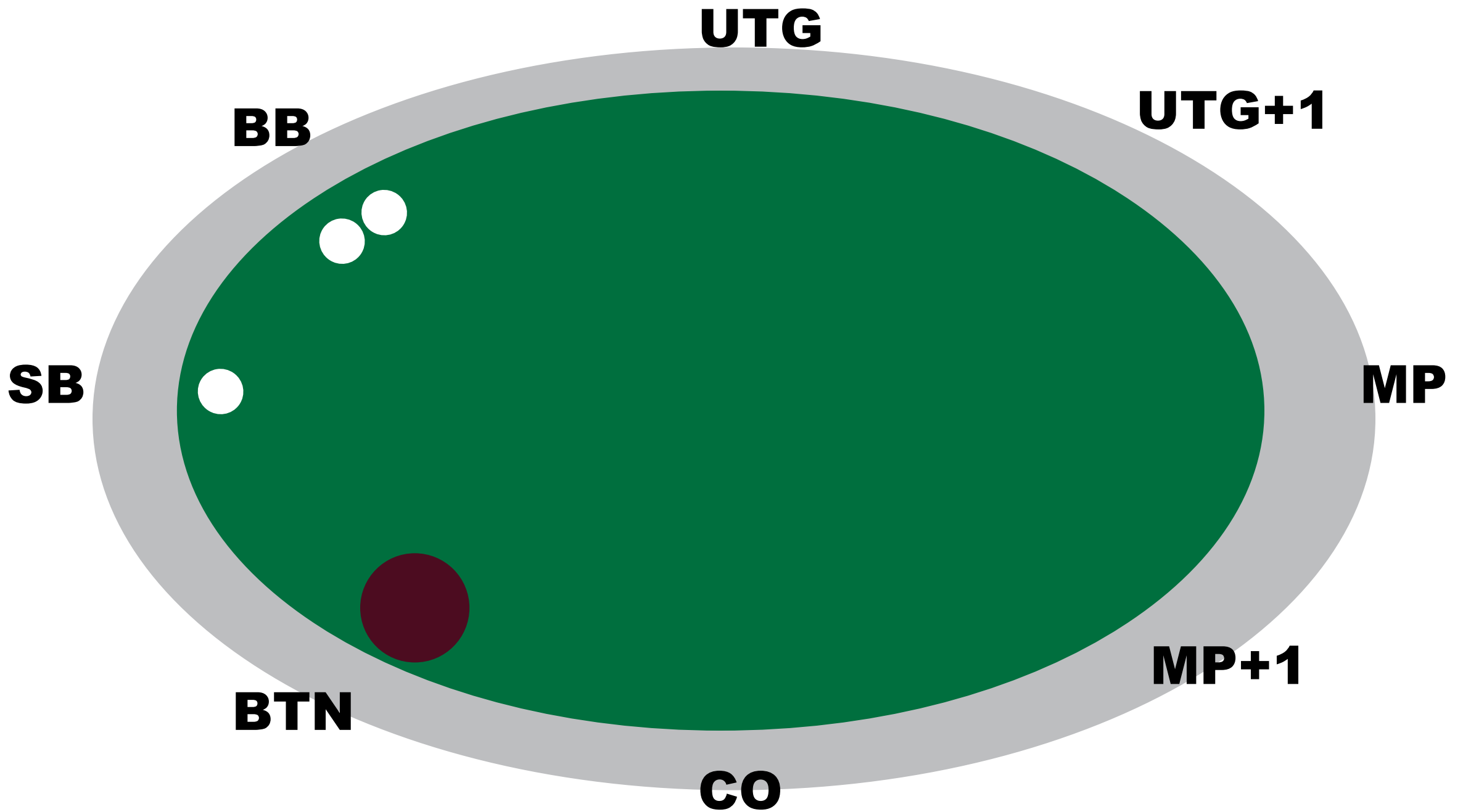


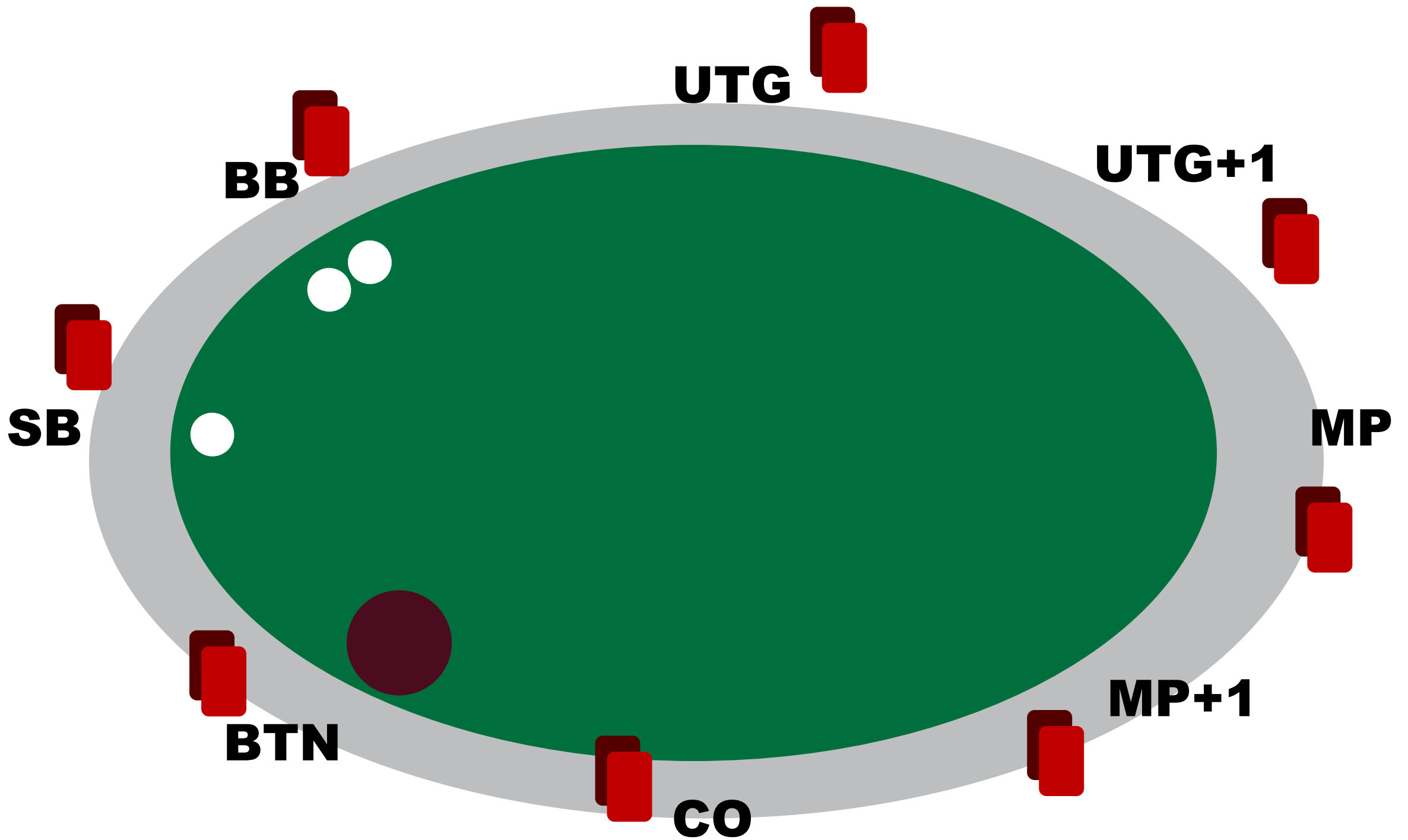


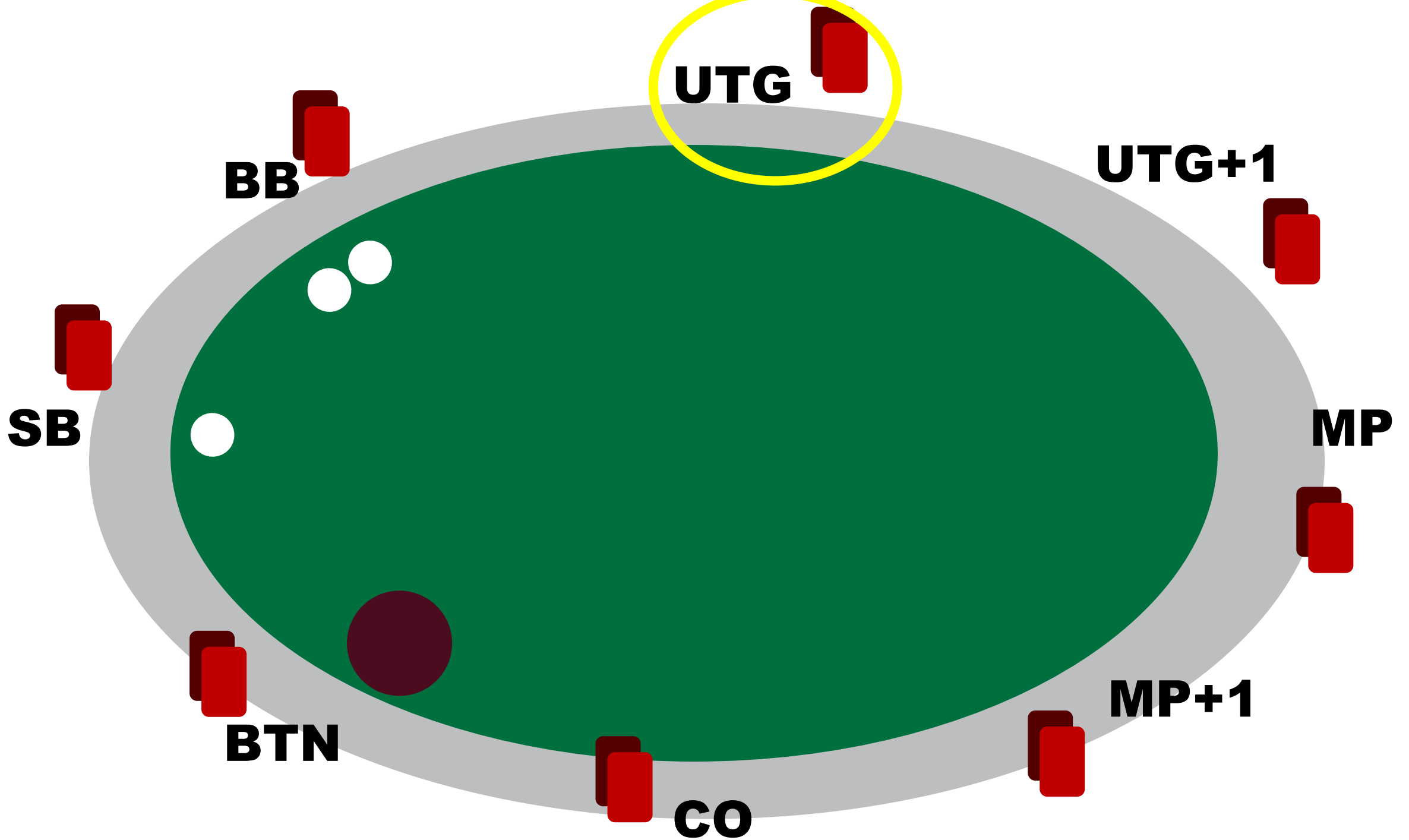












WHY?

HOUSE EDGE (-0.5%)



WHY?

HOUSE EDGE (-0.5%)

CARD COUNT (+0.5%)



WHY?



FORMATS

PokerShibes

Logins: 12

Ring Games: 26

Tournaments: 49

Sit & Go's: 12

Ring Game ID ▲	Game	Stakes	Buy In	Seats	Play	Wait	
Apollo	NL Hold'em	50/100	2000 - 10K	9	0	0	▲
Apollo HU	NL Hold'em	50/100	2000 - 10K	2	0	0	
Baily	NL Hold'em	3/6	120 - 600	6	0	0	
Crisium	NL Hold'em	500/1000	20K - 100K	9	0	0	
Crisium HU	NL Hold'em	500/1000	40K - 100K	2	0	0	
Gagarin	PL Omaha Hi-Lo	50/100	2000 - 10K	6	0	0	
Hertzsprung	PL Omaha	100/200	4000 - 20K	6	0	0	
Humboldtianum	PL Omaha	300/600	12K - 60K	6	0	0	
Imbrium	NL Hold'em	2000/4000	80K - 400K	9	0	0	
Keeler-Heaviside	NL Hold'em	300/600	12K - 60K	9	0	0	▼

No ring game selected

CASH GAMES



TOURNEYS

Place	Earnings
1st	\$8,005,310
2nd	\$4,661,228
3rd	\$3,453,035
4th	\$2,576,003
5th	\$1,935,288
6th	\$1,464,258
7th	\$1,250,190
8th	\$1,100,076
9th	\$1,000,000
10th-11th	\$650,000
12th-15th	\$427,930
16th-18th	\$338,288
19th-27th	\$269,430
28th-36th	\$216,211

37th-45th	\$174,826
46th-54th	\$142,447
55th-63rd	\$116,963
64th-72nd	\$96,787
73rd-81st	\$80,721
82nd-90th	\$67,855
91st-99th	\$57,494
100th-162nd	\$49,108
163rd-225th	\$42,285
226th-288th	\$36,708
289th-351st	\$32,130
352nd-414th	\$28,356
415th-477th	\$25,235
478th-540th	\$22,648
541st-603rd	\$20,499
604th-666th	\$18,714
667th-765th	\$17,232
766th-864th	\$16,007
865th-1011th	\$15,000

**2016 WSOP
Main Event
(\$10000 buy in)**

**10 DAYS
(7+ hrs/day)**

6737 players



LEVELS OF THINKING



0

LEVELS OF THINKING



0

1



LEVELS OF THINKING



0



1



LEVELS OF THINKING



0



1

2



LEVELS OF THINKING



0



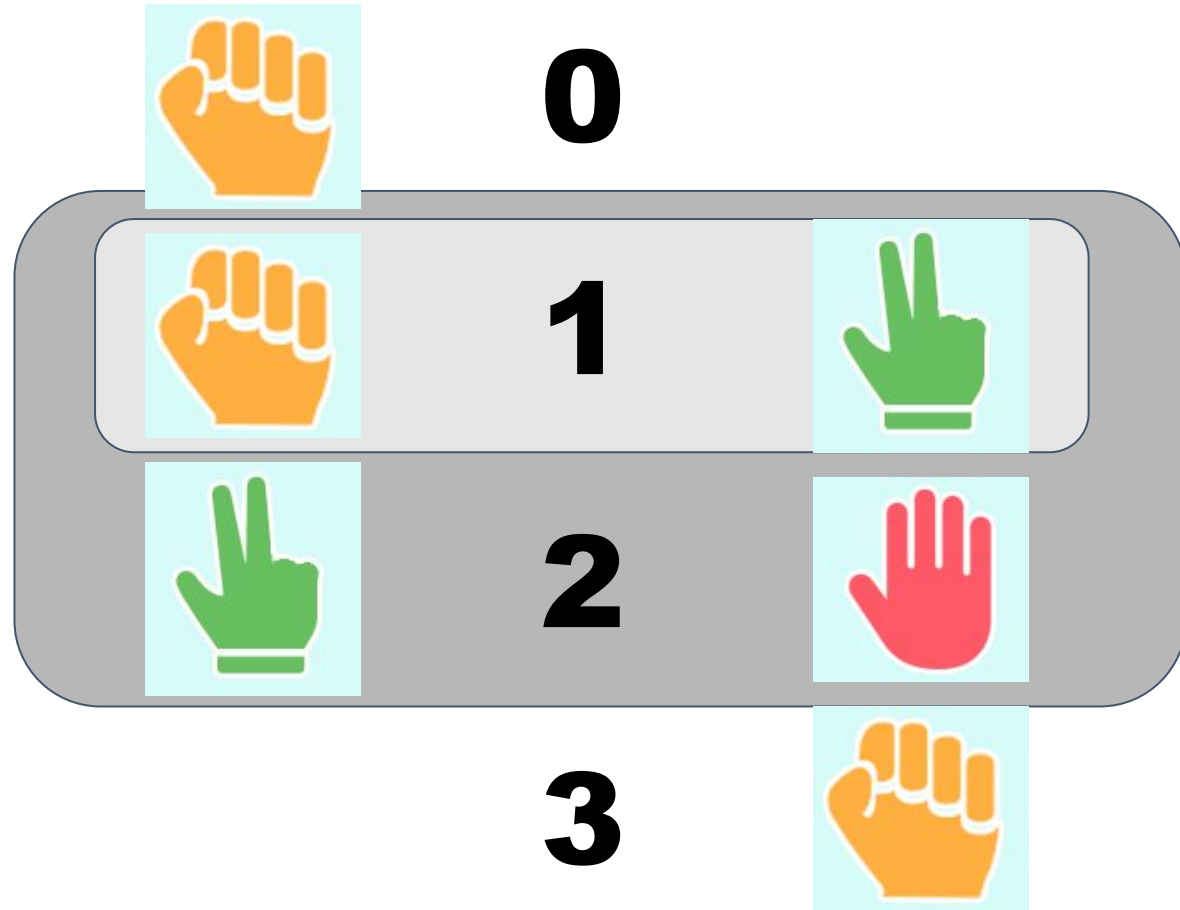
1



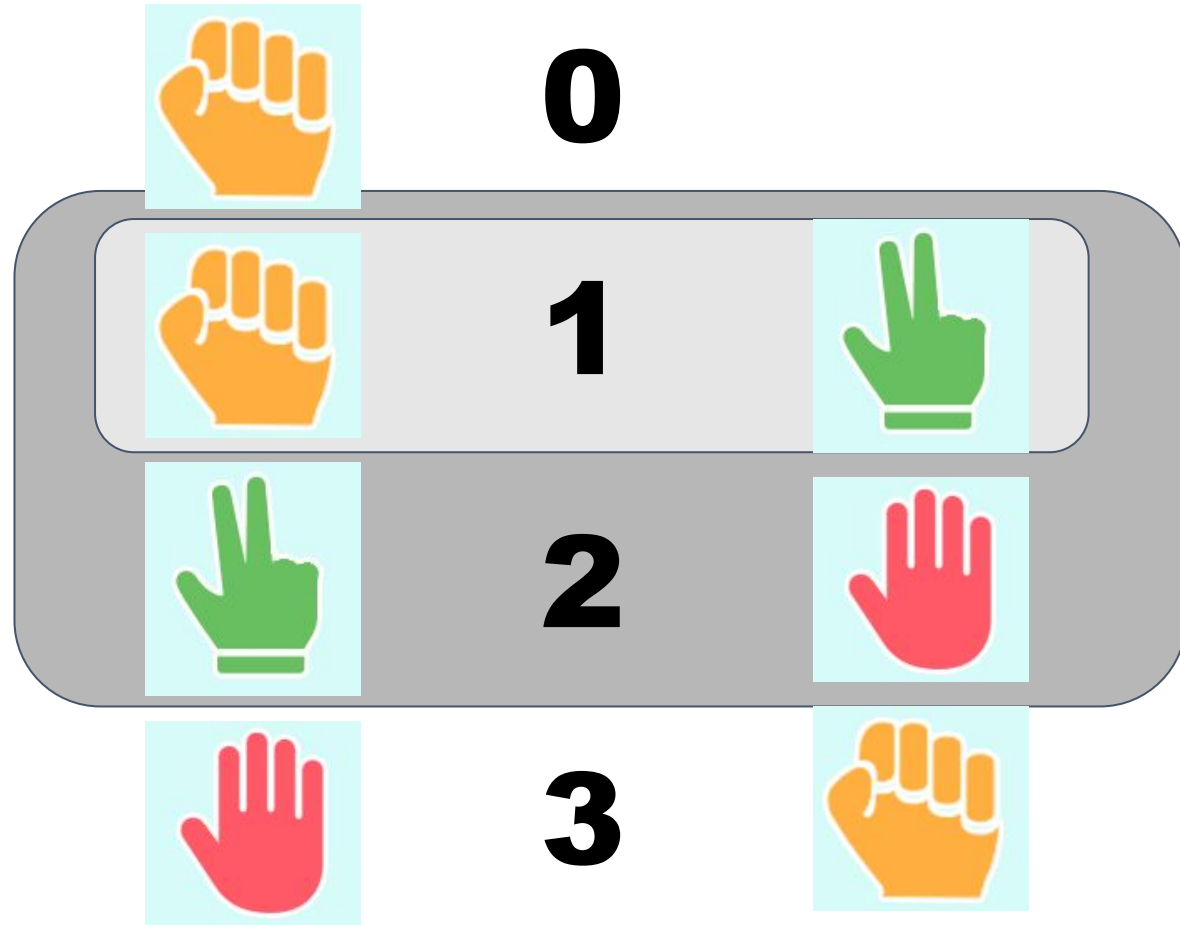
2



LEVELS OF THINKING



LEVELS OF THINKING



LEVELS OF THINKING



0



1



2



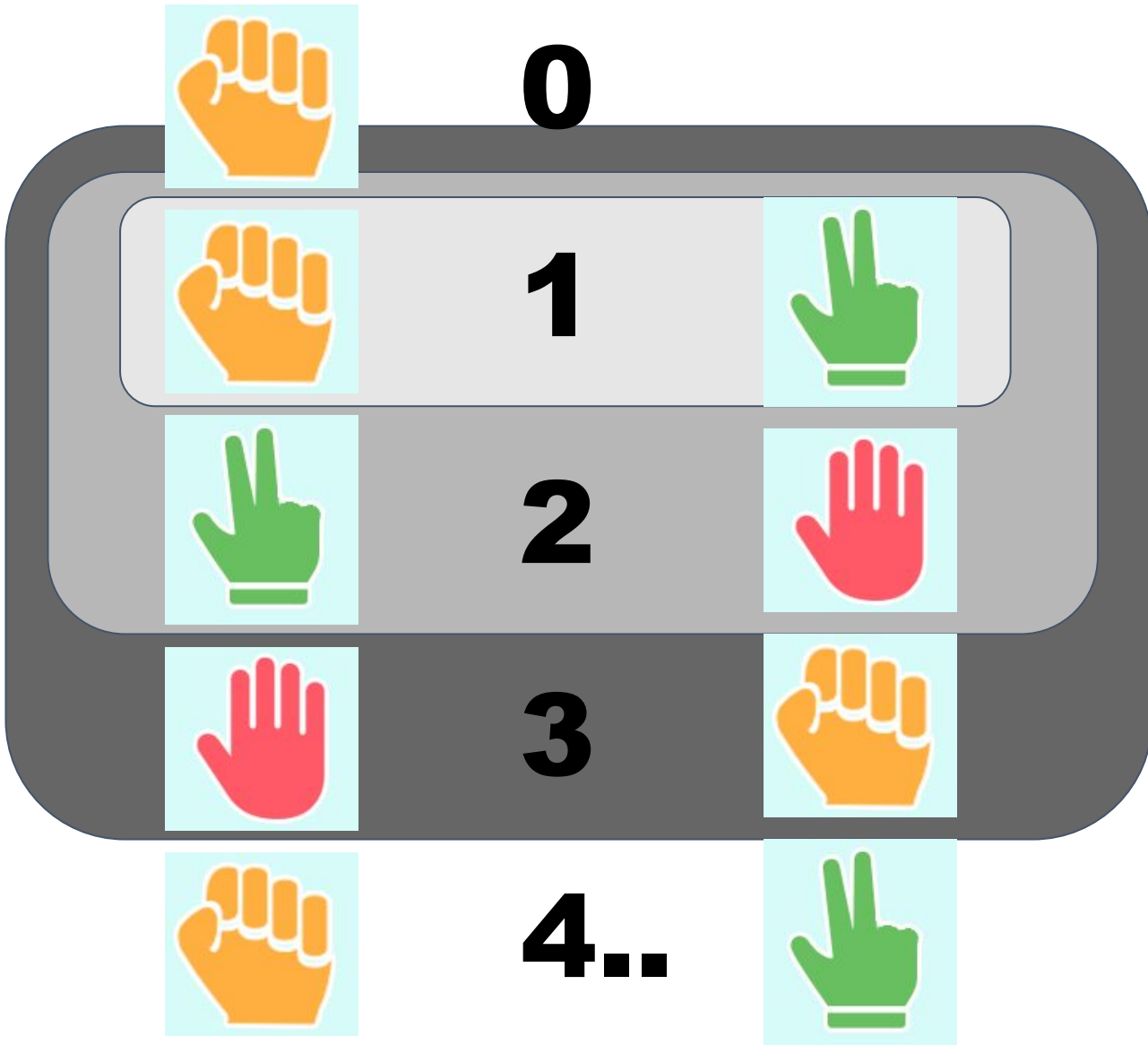
3



4..



LEVELS OF THINKING



FUNDAMENTAL THEOREM

Every time you play a hand differently from the way you would have played it if you could see all your opponents' cards, they gain; and every time you play your hand the same way you would have played it if you could see all their cards, they lose.

Conversely, every time opponents play their hands differently from the way they would have if they could see all your cards, you gain; and every time they play their hands the same way they would have played if they could see all your cards, you lose

-david sklansky

FUNDAMENTAL THEOREM

**make opponent do something they
wouldn't do if they had perfect
information**

FUNDAMENTAL THEOREM

**make opponent do something they
wouldn't do if they had perfect
information**

-> predict opponents

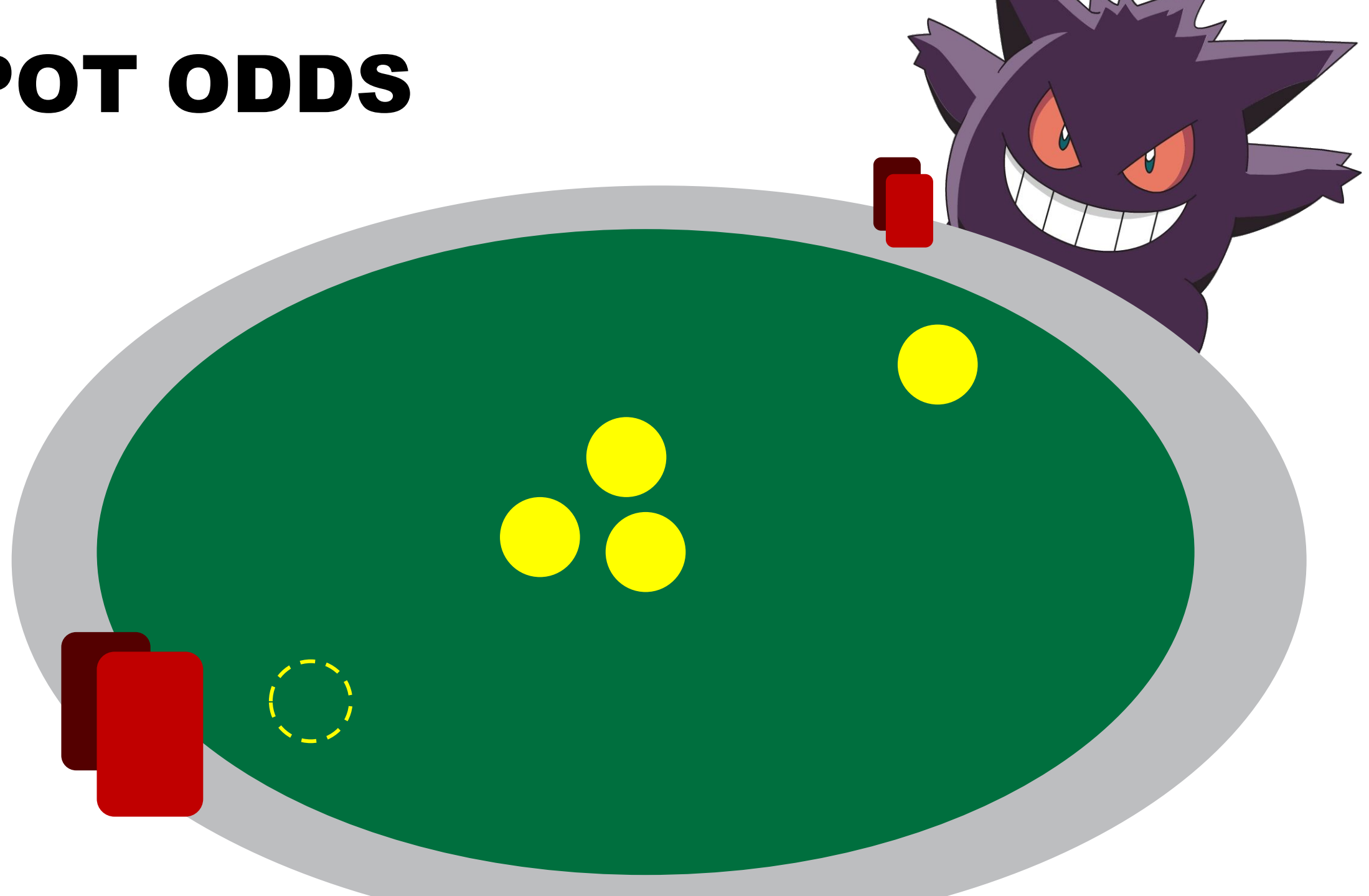
FUNDAMENTAL THEOREM

**make opponent do something they
wouldn't do if they had perfect
information**

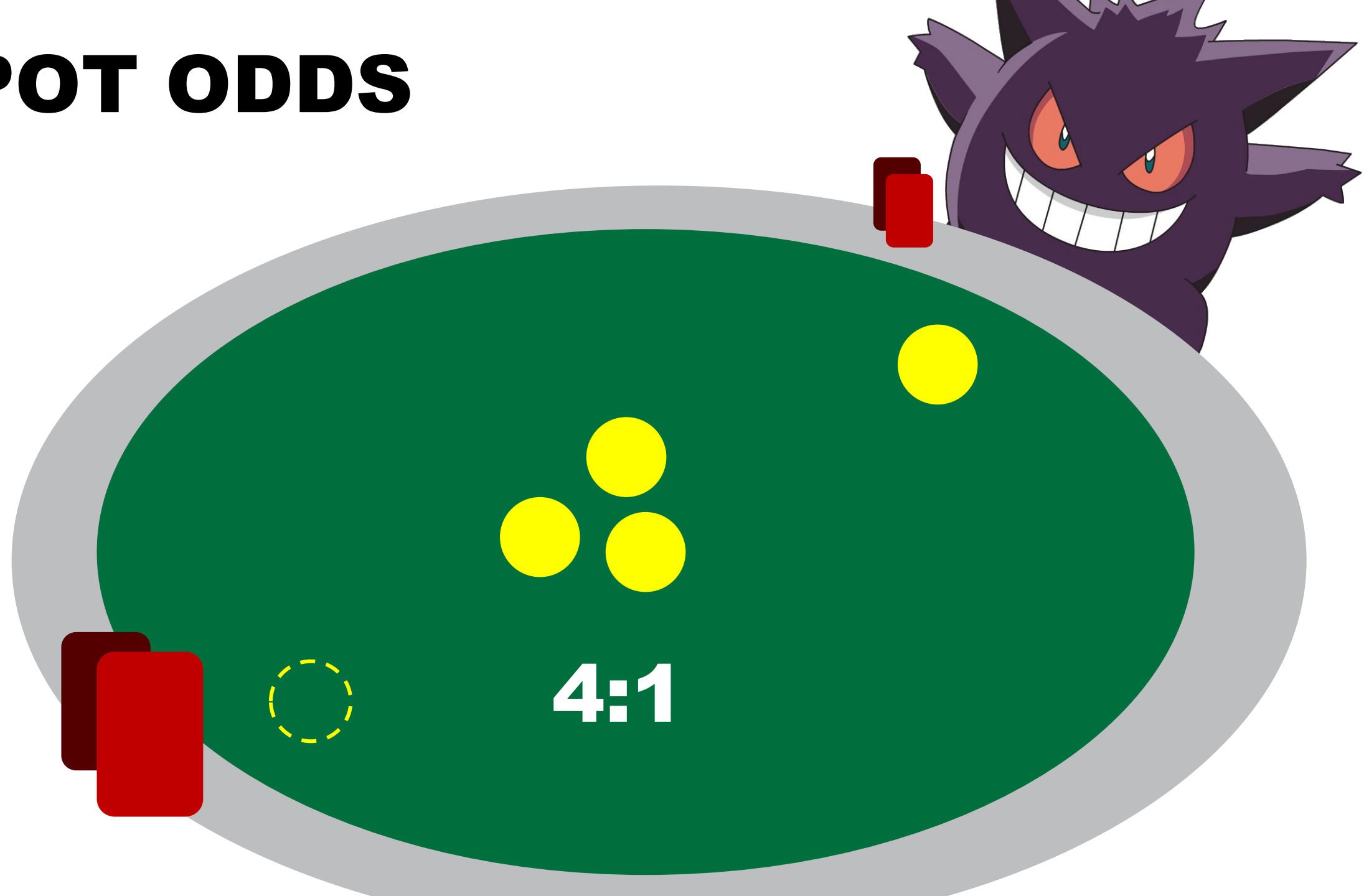
-> predict opponents

-> don't be predictable

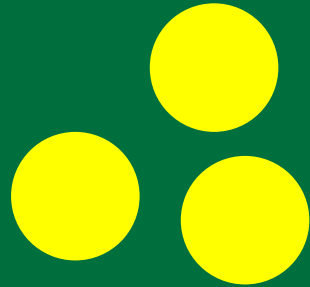
POT ODDS



POT ODDS



POT ODDS



4:1 (20%)

POT ODDS

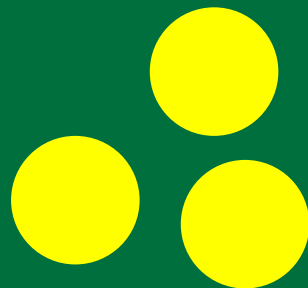
K♦ K♠

7♥ 9♣ K♥ 2♦



A♥

3♥



4:1 (20%)

DRAW ODDS

K♦ K♠

7♥ 9♣ K♥ 2♦

2♦ 2♣ 2♥ 2♠

3♦ 3♣ 3♥ 3♠

4♦ 4♣ 4♥ 4♠

5♦ 5♣ 5♥ 5♠

6♦ 6♣ 6♥ 6♠

7♦ 7♣ 7♥ 7♠

8♦ 8♣ 8♥ 8♠

9♦ 9♣ 9♥ 9♠

T♦ T♣ T♥ T♠

J♦ J♣ J♥ J♠

Q♦ Q♣ Q♥ Q♠

K♦ K♣ K♥ K♠

A♦ A♣ A♥ A♠

A♥

3♥

52 cards

DRAW ODDS

K♦ K♠

7♥ 9♣ K♥ 2♦

2♦ 2♣ 2♥ 2♠

3♦ 3♣ 3♥ 3♠

4♦ 4♣ 4♥ 4♠

5♦ 5♣ 5♥ 5♠

6♦ 6♣ 6♥ 6♠

7♦ 7♣ 7♥ 7♠

8♦ 8♣ 8♥ 8♠

9♦ 9♣ 9♥ 9♠

T♦ T♣ T♥ T♠

J♦ J♣ J♥ J♠

Q♦ Q♣ Q♥ Q♠

K♦ K♣ K♥ K♠

A♦ A♣ A♥ A♠

A♥

3♥

44 cards

DRAW ODDS

K♦ K♠

7♥ 9♣ K♥ 2♦

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

20.4%?

9/44 cards

A♥

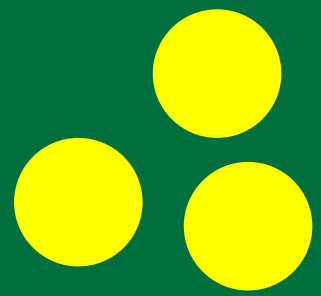
3♥



K♦ K♠

7♥ 9♣ K♥ 2♦

CALL!



4:1 (20%)

A♥

3♥



7♥ 9♣ K♥ 2♦

K♦ K♠

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

20.4%?

9/44 cards

A♥

3♥

7♥ 9♣ K♥ 2♦ 2♥ K♦ K♠

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

20.4%?

9/44 cards

A♥
3♥

7♥ 9♣ K♥ 2♦ 2♥ K♦ K♠

K♦K♠K♥2♦2♥ full house
A♥3♥7♥K♥2♥ flush

20.4%?

9/44 cards



A♥

3♥

7♥ 9♣ K♥ 2♦ 2♥ K♦ K♠

K♦K♠K♥9♣9♥ full house
A♥3♥7♥K♥9♥ flush

20.4%?

9/44 cards



A♥

3♥

7♥ 9♣ K♥ 2♦

K♦ K♠

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

15.9% ~~20.4%~~?

A♥

3♥

7 ~~9~~/44 cards

K♦ K♠

7♥ 9♣ K♥ 2♦



FOLD)=



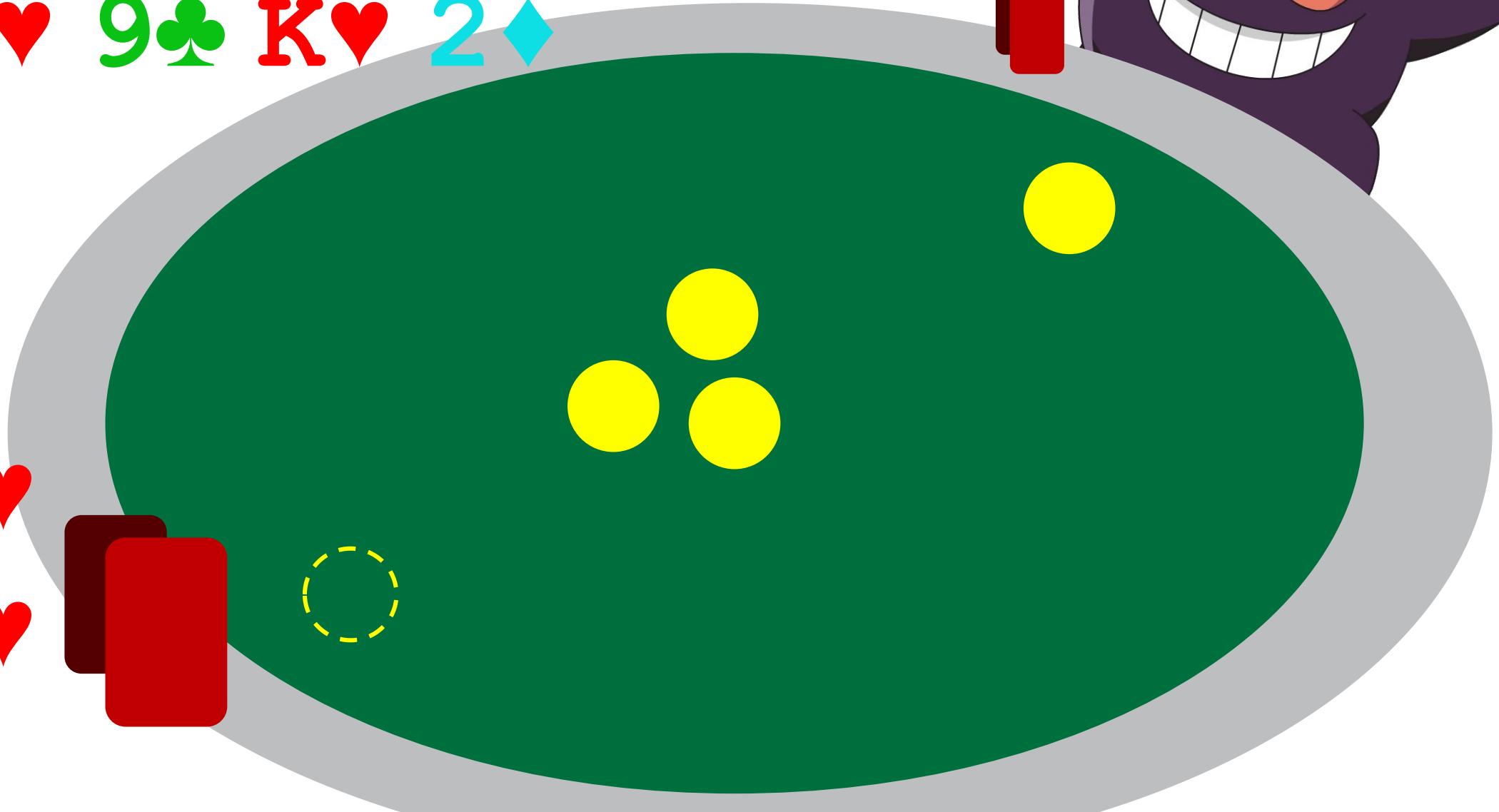
A♥

3♥



? ?

7♥ 9♣ K♥ 2♦



A♥

3♥



RANGES

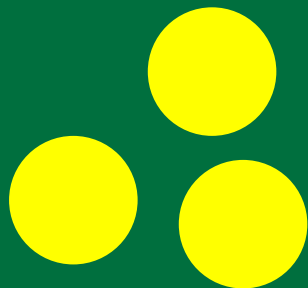
? ?

7♥ 9♣ K♥ 2♦



A♥

3♥



RANGES



COMMON PLAYING STYLES

AGGRESSIVE

More bets & raises

MANIAC

TIGHT AGGRESSIVE

"TAG"

Prefers bets & raises to calls
Very aggressive
Winning players

LOOSE AGGRESSIVE

"LAG"

Plays too many hands
Very aggressive
High variance in wins & losses

TIGHT

Plays less hands

LOOSE

Plays more hands

TIGHT PASSIVE

"The Rock"

Calls with good hands
If raising, look out!
Not a winning combination

LOOSE PASSIVE

"Calling station"

Calls with good hands
If raising, look out!
Generally not a winning player

PASSIVE

More calls

NIT

RANGES



ODDS

OUTS	POT ODDS
1	45 to 1
2	22 to 1
3	14.3 to 1
4	10.5 to 1
5	8.2 to 1
6	6.7 to 1
7	5.6 to 1
8	4.75 to 1
9	4.1 to 1
10	3.6 to 1
11	3.2 to 1
12	2.8 to 1
13	2.5 to 1
14	2.2 to 1
15	2.1 to 1
16	1.9 to 1
17	1.7 to 1
18	1.6 to 1

6 Players MAX

	UTG (3)				UTG + 1 (4)				CO (5)				Button (6)				SB (1)				BB (2)			
	NR	R	RR	CAP	NR	R	RR	CAP	NR	R	RR	CAP	NR	R	RR	CAP	NR	R	RR	CAP	NR	R	RR	CAP
AA-KK	R	R	R	C	R	R	R	C	R	R	R	C	R	R	R	C	R	R	R	C	R	R	R	C
QQ	R	R	R	C>4	R	R	R	C>4	R	R	R	C>4	R	R	R	C>4	R	R	R	C>4	R	R	R	C>4
JJ	R	R	C>4	C>4	R	R	C>4	C>4	R	R	C>4	C>4	R	R	C>4	C>4	R	R	C>4	C>4	R	R	C>4	C>4
TT	R	R<3	C>4	C>4	R	R<3	C>4	C>4	R	R<3	C>4	C>4	R	R<3	C>4	C>4	R	R<3	C>4	C>4	R	R<3	C>4	C>4
99	R<2	C	C>4	C>4	R<2	C	C>4	C>4	R<2	R<2	C>4	C>4	R<2	R<2	C>4	C>4	R<2	R<2	C>4	C>4	R<2	R<2	C>4	C>4
88 - 77	R<1	C>4	C>4	C>4	R<1	C>4	C>4	C>4	R<2	C>4	C>4	C>4	R<2	C>4	C>4	C>4	C	C>4	C>4	C>4	X	C>4	C>4	C>4
66 - 22	C>4	C>4	C>4	C>4	C>4	C>4	C>4	C>4	C>3	C>4	C>4	C>4	C>3	C>4	C>4	C>4	C	C>4	C>4	C>4	X	C>4	C>4	C>4
AKs	R	R	R	C>4	R	R	R	C>4	R	R	R	C>4	R	R	R	C>4	R	R	R	C>4	R	R	R	C>4
AQs	R	R	C>4	C>4	R	R	C>4	C>4	R	R	C>4	C>4	R	R	C>4	C>4	R	R	C>4	C>4	R	R	C>4	C>4
AJs	R	C>4	C>4	C>4	R	C>4	C>4	C>4	R	C>4	C>4	C>4	R	C>4	C>4	C>4	R	C>4	C>4	C>4	R	C>4	C>4	C>4
ATs	R	C>4	C>4	C>4	R	C>4	C>4	C>4	R	C>4	C>4	C>4	R	C>4	C>4	C>4	R	C>4	C>4	C>4	R	C>4	C>4	C>4
A9s	R<1	C>4	C>4	C>4	R<1	C>4	C>4	C>4	R<1	C>4	C>4	C>4	R	C>4	C>4	C>4	C	C>4	C>4	C>4	X	C>4	C>4	C>4
A8s - A2s	C	C>4	C>4	C>4	C	C>4	C>4	C>4	R<2	C>4	C>4	C>4	R<2	C>4	C>4	C>4	C	C>4	C>4	C>4	X	C>4	C>4	C>4
AK	R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R	
AQ	R	R			R	R			R	R			R	R			R<3	R<3			R<3	R<3		
AJ	R				R				R				R				C				X			
AT	C				C				R<3				R<3				C				X			
KQs	R	C>4	C>4	C>4	R	C>4	C>4	C>4	R	C>4	C>4	C>4	R	C>4	C>4	C>4	R	C>4	C>4	C>4	R	C>4	C>4	C>4
KJs	R	C>4	C>4	C>4	R	C>4	C>4	C>4	R	C>4	C>4	C>4	R	C>4	C>4	C>4	C	C>4	C>4	C>4	X	C>4	C>4	C>4
KTs	C	C>4	C>4	C>4	C	C>4	C>4	C>4	R	C>4	C>4	C>4	R	C>4	C>4	C>4	C	C>4	C>4	C>4	X	C>4	C>4	C>4
KQ	R				R				R				R				C				X			
KJ									R<3				R<3				C				X			
KT									R<2				R<2								X			
QJs	C	C>4	C>4	C>4	C	C>4	C>4	C>4	R	C>4	C>4	C>4	R	C>4	C>4	C>4	C	C>4	C>4	C>4	X	C>4	C>4	C>4
QTs	C	C>4	C>4	C>4	C	C>4	C>4	C>4	R	C>4	C>4	C>4	R	C>4	C>4	C>4	C	C>4	C>4	C>4	X	C>4	C>4	C>4
QJ									R<2				R<2				C				X			
QT									R<2				R<2								X			
JTs	C	C>4	C>4	C>4	C	C>4	C>4	C>4	R	C>4	C>4	C>4	R	C>4	C>4	C>4	C	C>4	C>4	C>4	X	C>4	C>4	C>4
JT									R<2				R<2								X			
T9s - 65s	C>4	C>4	C>4	C>4	C>4	C>4	C>4	C>4	C>4	C>4	C>4	C>4	C>4	C>4	C>4	C>4	C	C>4	C>4	C>4	X	C>4	C>4	C>4
T8s - 97s	C>4	C>4	C>4	C>4	C>4	C>4	C>4	C>4	C>2	C>4	C>4	C>4	C>2	C>4	C>4	C>4	C	C>4	C>4	C>4	X	C>4	C>4	C>4
XXs																	C				X			

LEGEND

NR No Raise R Against a Raise RR Against a Raise and a Re-Raise CAP Against a Cap X Check Raise Call Special

RANGES



AA	AKs	AQs	AJs	ATs	A9s	A8s	A7s	A6s	A5s	A4s	A3s	A2s
AKo	KK	KQs	KJs	KTs	K9s	K8s	K7s	K6s	K5s	K4s	K3s	K2s
AQo	KQo	QQ	QJs	QTs	Q9s	Q8s	Q7s	Q6s	Q5s	Q4s	Q3s	Q2s
AJo	KJo	QJo	JJ	JTs	J9s	J8s	J7s	J6s	J5s	J4s	J3s	J2s
ATo	KTo	QTo	JTo	TT	T9s	T8s	T7s	T6s	T5s	T4s	T3s	T2s
A9o	K9o	Q9o	J9o	T9o	99	98s	97s	96s	95s	94s	93s	92s
A8o	K8o	Q8o	J8o	T8o	98o	88	87s	86s	85s	84s	83s	82s
A7o	K7o	Q7o	J7o	T7o	97o	87o	77	76s	75s	74s	73s	72s
A6o	K6o	Q6o	J6o	T6o	96o	86o	76o	66	65s	64s	63s	62s
A5o	K5o	Q5o	J5o	T5o	95o	85o	75o	65o	55	54s	53s	52s
A4o	K4o	Q4o	J4o	T4o	94o	84o	74o	64o	54o	44	43s	42s
A3o	K3o	Q3o	J3o	T3o	93o	83o	73o	63o	53o	43o	33	32s
A2o	K2o	Q2o	J2o	T2o	92o	82o	72o	62o	52o	42o	32o	22

HUDs / notes



The screenshot displays a PokerStars HUD for a multi-table game. The central focus is a hand in progress with a pot of \$90. The HUD for each player includes their position, hand number, stack size, and various statistics. A yellow banner in the center of the table reads "Limits going up: blinds 30/60".

Hand #13578056946

Hand Summary:
L 2B 19 58 CB 83 62 65
1 Vs 6 6.4 Vs 36 0 1k
L 2B 27 69 CB 73 54 47
2 Vs 18 6.0 Vs 79 50 1k
L 2B 24 36 CB 63 33 73
1 Vs 7 11.2 Vs 44 100 1k
L 2B 21 54 CB 85 83 63
2 Vs 11 8.0 Vs 38 50 902
L 2B 22 66 CB 77 42 72
1 Vs 6 14.4 Vs 43 0 1k
L 2B 28 55 CB 75 53 67
1 Vs 6 8.7 Vs 64 0 1k

Blinds: 30/60

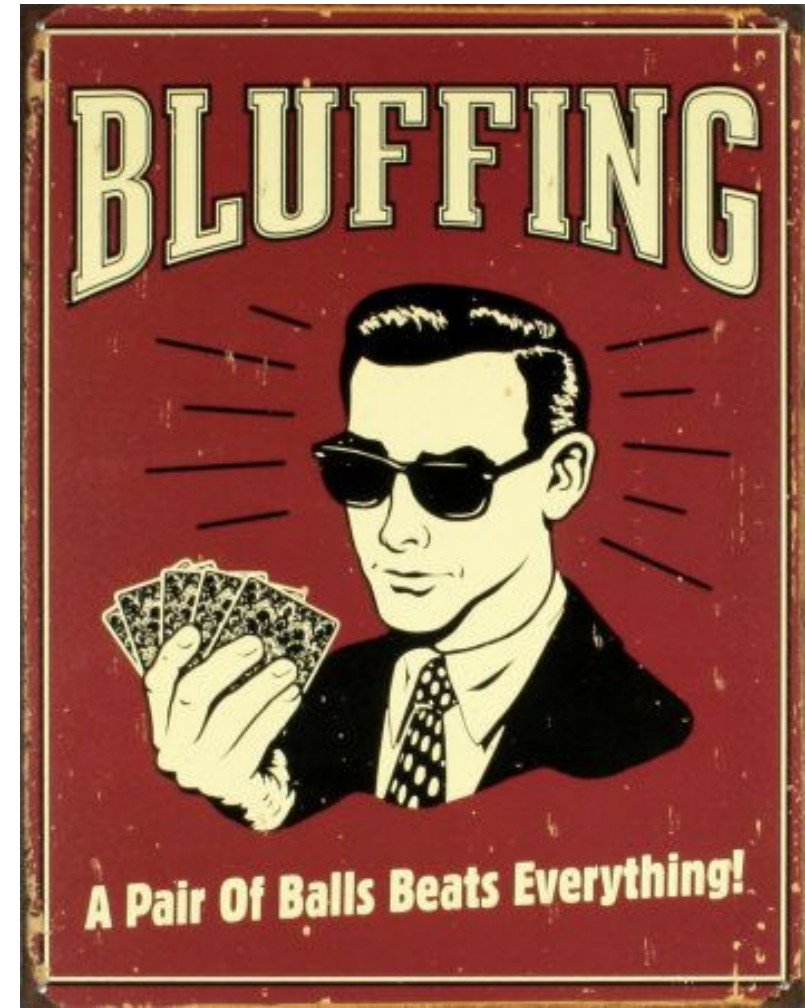
Table Action: Pot: \$90, Post SB, \$3,255, \$2,970, \$3,000, \$4,720, \$3,000, \$8,882

HUD Elements:
- **Chat:** Dealer: Limits going up: blinds 30/60
- **Notes:** Empty
- **Stats:** Empty
- **Info:** Empty
- **Buttons:** Call \$60, Call Any, Fold

Player Statistics (Visible):
- **16 vil 7 14:** 26 37 69 83 55 67
- **21 vil 6 18:** 45 49 64 64 58 50
- **20 vil 5 15:** 35 57 57 50 36 57
- **21 vil 4 19:** 42 63 74 65 71 61
- **22 vil 3 19:** 32 39 82 81 71 69
- **98k 20 Hero 17:** ST 46, FS 69, 3B 8, F3 44, CB 73, FC 48

BLUFFS

**your opponent doesn't know
what you have**



BLUFFS

**your opponent doesn't know
what you have**

**optimal: bluff $x\%$ of the time
 $x\%$: opponent's pot odds**

TELLS

clock



TELLS

clock

betting patterns



TELLS

clock

betting patterns

eye contact



TELLS

clock

betting patterns

eye contact

table talk



LIBRATUS



Safe and Nested Endgame Solving for Imperfect-Information Games

Noam Brown
Computer Science Department
Carnegie Mellon University
noamb@cs.cmu.edu

Tuomas Sandholm
Computer Science Department
Carnegie Mellon University
sandholm@cs.cmu.edu

Abstract

Unlike perfect-information games, imperfect-information games cannot be decomposed into subgames that are solved independently. Thus more computationally intensive equilibrium-finding techniques are used, and *abstraction*—in which a smaller version of the game is generated and solved—is essential. *Endgame solving* is the process of computing a (presumably) better strategy for just an endgame than what can be computationally afforded for the full game. Endgame solving has many benefits, such as being able to 1) solve the endgame in a finer information abstraction than what is computationally feasible for the full game, and 2) incorporate into the endgame actions that an opponent took that were not included in the action abstraction used to solve the full game. We introduce an endgame solving technique that outperforms prior methods both in theory and practice. We also show how to adapt it, and past endgame-solving techniques, to respond to opponent actions that are outside the original action abstraction; this significantly outperforms the state-of-the-art approach, action translation. Finally, we show that endgame solving can be repeated as the game progresses

optimal response to the Sicilian Defense. To see that such a decomposition is not possible in imperfect-information games, consider the game of Coin Toss shown in Figure 1. In that game, a coin is flipped and lands either Heads or Tails with equal probability, but only Player 1 sees the outcome. Player 1 can then choose between actions Left and Right, with Left leading to some unknown subtree. If Player 1 chooses Right, then Player 2 has the opportunity to guess how the coin landed. If Player 2 guesses correctly, Player 1 receives a reward of -1 and Player 2 receives a reward of 1 (the figure shows rewards for Player 1; Player 2 receives the negation of Player 1's reward). Clearly Player 2's optimal strategy depends on the probabilities that Player 1 chooses Right with Heads and Tails. But the probability that Player 1 chooses Right with Heads depends on what Player 1 could alternatively receive by choosing Left instead. So it is not possible to determine what Player 2's optimal strategy is in the Right subtree without knowledge of the Left subtree.

jan 11-31
120000 hands

Name	Rank	Results (in chips)
Dong Kim	1	-\$85,649
Daniel MacAulay	2	-\$277,657
Jimmy Chou	3	-\$522,857
Jason Les	4	-\$880,087
Total:		-\$1,766,250

LIBRATUS



[-] Boocks 344 points 4 months ago

This is a question for Dong and Jason. In terms of how the computer plays would you say it's like playing a very strong human player or is it playing in a different way to how a human would play?

[permalink](#) [source](#) [embed](#) [save](#) [save-RES](#) [report](#) [give gold](#) [REPLY](#) [hide child comments](#)

[-] brains_vs_ai [S] 552 points 4 months ago

Jason: We're seeing the bot play like a strong human player, but also putting way more pressure on us than any human can correctly.

[permalink](#) [source](#) [embed](#) [save](#) [save-RES](#) [parent](#) [report](#) [give gold](#) [REPLY](#) [hide child comments](#)

[-] cuntevasion 141 points 4 months ago

Not hugely familiar with poker lingo, what does that mean exactly? The bot bets heavily more frequently than humans, and in situations where it is a good choice more frequently than you would expect from humans? Like it more frequently calls bluffs, tries to push people out of pots, etc?

[permalink](#) [source](#) [embed](#) [save](#) [save-RES](#) [parent](#) [report](#) [give gold](#) [REPLY](#) [hide child comments](#)

[-] frinxor 240 points 4 months ago

my guess would be that the bot puts the humans into much tougher choices.

against weaker players, a stronger player might come to a conclusion that in a specific scenario that they guess that correct play is Call 60-70%, raise 0%, fold 30-40%. vs liberaturs, the bot seems to be betting and playing in a way that the strong human player has lots of trouble figuring out what the correct response might be: maybe call 45-55% and fold 45-55%, and without knowing which is the correct answer they pick and make an incorrect choice.

a strong human player just doesnt have the capacity to put their opponent to so many tough choices consistently and correctly

(my random guess)

jan 11-31
120000 hands

	Rank	Results (in chips)
	1	-\$85,649
ilay	2	-\$277,657
	3	-\$522,857
	4	-\$880,087
		-\$1,766,250

THANKS!

stuff i ran out of time to talk about:

- history of online poker (black friday...)**
- implicit odds**
- stack sizes**
- other jargon**
- other games (omaha, 5 draw, stud, hi/lo, razz...)**
- funny things**