

City	Casino	Site	Phone
Adelaide	Skycity Adelaide	www.skycityadelaide.com.au	(08) 82122811
Alice Springs	Lasseters	www.lassetershotelcasino.com.au	(08) 89507777
Brisbane	Conrad Treasury	www.conrad.com.au	(07) 33068888
Cairns	Reef	www.reefcasino.com.au	(07) 40308888
Canberra	Canberra	www.casinocanberra.com.au	(02) 62577074
Darwin	Skycity Darwin	www.skycitydarwin.com.au	(08) 89438888
Gold Coast	Conrad Jupiters	www.conrad.com.au	(07) 55928100
Hobart	Wrest Point	www.wrestpoint.com.au	(03) 62111750
Melbourne	Crown	www.crowncasino.com.au	(03) 92928888
Perth	Burswood	www.burswood.com.au	(08) 93627777
Sydney	Star City	www.starcity.com.au	(02) 97779000
Townsville	Jupiters Townsville	www.jupiterstownsville.com.au	(07) 47222333

LOTTO GAMES

OZ LOTTO

Choose 6 from 45 numbers available

1 game per entry

\$1 per game goes into the prize pool

House Margin = 43.5%

Division	Prize Pool(%)	Return(%)	Expected Return(\$)	Probability
1	40	22.6	1,840,783.56	1 in 8,145,060
2	6	3.39	23,009.80	1 in 678,755
3	11	6.62	2,280.25	1 in 36,690
4	19	10.74	78.67	1 in 733
5	24	13.56	40.34	1 in 298

TATTSLOTTO or SATURDAY LOTTO

Choose 6 from 45 numbers available

4 games per entry

\$0.40 per game goes into the prize pool

House Margin = 40%

Division	Prize Pool(%)	Return(%)	Expected Return(\$)	Probability(per entry)	Probability(per game)
1	26.2	15.72	512,161.37	1 in 2,036,265	1 in 8,145,060
2	6.7	4.02	10,914.38	1 in 169689	1 in 678,755
3	12.4	7.44	1,091.89	1 in 9173	1 in 36,690
4	21.1	12.66	37.12	1 in 183	1 in 733
5	33.6	20.16	24.03	1 in 75	1 in 298

MONDAY LOTTO (SA)

Choose 6 from 45 numbers available

4 games per entry

House Margin = 40%

Division	Prize Pool(%)	Probability(per entry)	Probability(per game)
1	26.5	1 in 2,036,265	1 in 8,145,060
2	7	1 in 169689	1 in 678,755
3	13	1 in 9173	1 in 36,690
4	11	1 in 1810	1 in 7,240
5	20	1 in 204	1 in 815
6	22.5	1 in 75	1 in 297

SUPER 66

1 game per entry

House Margin = 44%

Division	Probability	Amount(\$)
1	1 in 1,000,000	Balance of prize pool
2	1 in 55,556	6,666
3	1 in 5,556	666
4	1 in 556	66
5	1 in 56	6.60

POWERBALL

Choose 5 from 45 numbers available and one Powerball number

2 games per entry

\$0.50 per game goes into the prize pool

House Margin = 40%

Division	Prize Pool(%)	Return(%)	Expected Return(\$)	Probability(per entry)	Probability(per game)
1	37.5	22.5	6,185,155.05	1 in 27,489,578	1 in 54,979,155
2	14	8.4	52,480.18	1 in 624,764	1 in 1,249,572
3	6.4	3.84	5,278	1 in 137,448	1 in 274,896
4	5	3	105.75	1 in 3,525	1 in 7,049
5	2.8	1.68	52.48	1 in 3,124	1 in 6,248
6	12.5	7.5	20.93	1 in 279	1 in 557
7	21.8	13.08	10.59	1 in 81	1 in 161

6 FROM 38 POOLS

Choose 6 from 38 numbers available

2 games per entry

House Margin = 50%

Division	Prize Pool (%)	Expected Return(\$)	Probability(per entry)	Probability(per game)
1	65	448,610	1 in 1,380,341	1 in 2,760,681
2	2	2,301	1 in 230,057	1 in 460,114
3	6	223	1 in 7,421	1 in 14,842
4	15	14	1 in 186	1 in 371
5	12	9	1 in 149	1 in 297

MONDAY AND WEDNESDAY LOTTO (NSW and ACT)

Choose 6 from 44 numbers available

4 games per entry

House Margin = 40%

Division	Prize Pool (%)	Probability(per entry)	Probability(per game)
1	45	1 in 1,764,763	1 in 7,059,052
2	7.5	1 in 147,064	1 in 588,254
3	12.5	1 in 8,170	1 in 32,681
4	15	1 in 167	1 in 669
5	20	1 in 68	1 in 1 in 272

LOTTO STRIKE (NSW)

Choose 6 from 44 numbers available

4 games per entry

House Margin = 40%

Strike	Probability(per entry)	Probability(per game)	Amount(\$)
4	1 in 814,506	1 in 3,258,024	At least 100,000
3	1 in 5,091	1 in 20,363	1,000
2	1 in 83	1 in 331	80
1	0.338	1 in 12	Free Ticket

WEDNESDAY TATTSLOTTO (VIC)

Choose 6 from 40 numbers available

4 games per entry

Division	Probability(per entry)	Probability(per game)
1	1 in 959,595	1 in 3,838,380
2	1 in 79,966	1 in 319,865
3	1 in 10,431	1 in 41,722
4	1 in 114	1 in 456
5	1 in 47	1 in 87

TATTS 2 (TAS and VIC)

Choose 2 different numbers between 1 and 99 inclusive

House Margin = 53%

Division	Expected Return(\$)	Probability
1	852(average)	1 in 4851
2	3(set)	1 in 50

CASH 3 (WA)

Choose a 3-digit number between 000 and 999 inclusive

House Margin = 50%

Type of bet	Probability
Exact	1 in 1000
Any (3 different digits)	1 in 167
Any (2 identical digits)	1 in 333
Exact/Any (3 different digits)	1 in 167
Exact/Any (2 identical digits)	1 in 333

LOTTERIES

LUCKY 7 (NSW)

Number	How To Win	Probability	Prize(\$)
Lucky 7	match the 7 digit number	1 in 1,000,000	1,000,000
Lucky 6	match the 6 digit number	1 in 180,000	20,000
	match the last 5 digits of the 6 digit number	1 in 70,000	2,000
	match the last 4 digits of the 6 digit number	1 in 12,500	200
	match the last 3 digits of the 6 digit number	1 in 1,111	20
	Lucky 3	match the last 3 digits of the 3 digit number	1 in 999
	match the last 2 digits of the 3 digit number	1 in 111	free \$10 ticket

THE \$2 JACKPOT LOTTERY

1 game per entry

Amount(\$)	Number Awarded	Probability
A least 500,000		1 in 9,574,468
100,000	1	1 in 180,000
10,000	1	1 in 180,000
5000	1	1 in 180,000
1000	2	1 in 90,000
500	2	1 in 90,000
200	5	1 in 36,000
100	12	1 in 15,000
50	60	1 in 3,000
20	600	1 in 300
10	2700	0.015
Free Ticket	6763	0.038

INSTANT SCRATCHIES

House Margin = 40-47%

POKER MACHINES

House Margin = 8-15%

KENO GAMES

CLUB KENO (NSW)

Note: Maximum of \$250,000 for 15 numbers out of 15, regardless of spend.
For Jackpots, 10% of the money invested goes into increasing the size of the jackpot.

Game	Match	Return(for a \$1 bet)	Probability	House Margin(%)
1	1	3	0.25	25
2	2	12	0.0601	27.85
3	2	1	0.139	25.07
	3	44	0.0139	
4	2	1	0.213	24.98
	3	4	0.0432	
	4	119	1 in 327	
5	3	2	0.0839	25.01
	4	14	0.0121	
	5	640	1 in 1,550	
6	3	1	0.13	25.02
	4	5	0.0285	
	5	85	1 in 323	
	6	1,660	1 in 7,752	
7	0	1	0.122	24.94
	3	1	0.175	
	4	2	0.0522	
	5	8	1 in 116	
	6	80	1 in 1,366	
	7	5,000+	1 in 40,984	
8	0	1	0.0883	24.93
	4	1	0.0815	
	5	8	0.0183	
	6	48	1 in 422	
	7	835	1 in 6,250	
	8	20,000+	1 in 229,885	
9	0	1	0.0637	24.9
	4	1	0.114	
	5	5	0.0326	
	6	18	1 in 175	
	7	90	1 in 1,689	
	8	2,500	1 in 30,675	
	9	100,000+	1 in 1,381,215	
10	0	2	0.0458	25.02
	5	2	0.0514	
	6	10	0.0115	
	7	55	1 in 621	
	8	580	1 in 7,407	
	9	10,000	1 in 163,399	
	10	1,000,000+	1 in 8,928,571	
15	0	11	1 in 125	25.01
	1	2	0.0523	
	2	1	0.148	
	6	1	0.0863	
	7	3	0.0299	
	8	10	1 in 136	
	9	50	1 in 787	
	10	330	1 in 6,579	
	11	2,600	1 in 81,301	
	12	20,000	1 in 1,538,462	
	13	60,000	1 in 48,309,179	
	14	110,000	1 in 2,857,142,857	
	15	250,000	1 in 427,350,427,400	

TATTS KENO (VIC)

Game	Match	Return(for a \$1 bet)	Probability	House Margin(%)
3	2	2	0.139	44.5
	3	20	0.0139	
4	3	5	0.0432	47.74
	4	100	1 in 327	
5	4	25	0.0121	47.20
	5	350	1 in 1,550	
6	5	80	1 in 323	49.44
	6	2,000	1 in 7,752	
7	5	25	1 in 116	47.9
	6	250	1 in 1,366	
	7	5,000	1 in 40,984	
8	6	90	1 in 422	48.58
	7	1,200	1 in 6,250	
	8	25,000	1 in 229,885	
9	6	30	1 in 175	49.4
	7	250	1 in 1,689	
	8	3,500	1 in 30,675	
	9	100,000	1 in 1,381,215	
10	0	5	0.0458	46.41
	7	50	1 in 621	
	8	500	1 in 7,407	
	9	5,000	1 in 163,399	
	10	250,000+	1 in 8,928,571	

HEADS OR TAILS

Game	Return(for a \$1 bet)	Probability	House Margin(%)
Heads	2	0.398	20.32
Tails	2	0.398	20.32
Evens	4	0.203	18.7

ROULETTE

Type of bet	Odds	House Margin(%)	Probability
Straight-Up	35-1	2.7	0.027
Split	17-1	2.7	0.054
Street	11-1	2.7	0.081
Corner	8-1	2.7	0.108
Six-Line	5-1	2.7	0.162
Column	2-1	2.7	0.324
Dozen	2-1	2.7	0.324
Low	1-1	2.7	0.486
High	1-1	2.7	0.486
Red	1-1	2.7	0.486
Black	1-1	2.7	0.486
Odd	1-1	2.7	0.486
Even	1-1	2.7	0.486

CRAPS

Type of bet		Odds	HM(%)	Probability
Win Line, Pass Line, Come		1-1	1.41	0.493
Don't Win line, Don't Pass Line, Don't Come		1-1	1.36	0.479
Hardways	Hard 6 or 8	9.5-1	4.55	0.091
	Hard 4 or 10	7.5-1	5.56	0.111
Place Bets-to win	Place 4 or 10	9-5	6.67	0.333
	Place 5 or 9	7-5	4.00	0.400
	Place 6 or 8	7-6	1.52	0.455
Place Bets-to lose	Place 4 or 10	5-11	3.03	0.667
	Place 5 or 9	5-8	2.50	0.600
	Place 6 or 8	4-5	1.82	0.545
Buy bets	Buy 4 or 10	2-1	4.76	0.333
	Buy 5 or 9	3-2	4.76	0.400
	Buy 6 or 8	6-5	4.76	0.455
Lay Bets	Lay 4 or 10	1-2	2.44	0.667
	Lay 5 or 9	2-3	3.23	0.600
	Lay 6 or 8	5-6	4.00	0.545
Proposition Bets	Any Seven	4-1	16.67	0.167
	Any Craps	7.5-1	5.56	0.111
	Craps 2 or Craps 12	33-1	5.56	0.028
	Craps 3 or Craps 11	16-1	5.56	0.056
Field Bet	3,4,9,10 or 11	1-1	5.56	0.389
	2 or 12	2-1		0.056
Big 6, Big 8		1-1	9.09	0.455

TWO-UP

Type of bet	Odds	House Margin(%)	Probability
Players Bet(Heads)	1-1	3.13	0.484
Players Bet(Tails)	1-1	3.13	0.484
Players Bet(Odds)	25-1	18.75	0.031
Spinners Bet	7.5-1	3.40	0.114

BACCARAT / MINI-BACCARAT

The following is for 8 decks of cards.

Type of bet	Odds	House Margin(%)	Probability
Player	1-1	1.24	0.446
Banker	19-20	1.06	0.459
Tie	8-1	14.36	0.095

CARIBBEAN STUD POKER

House Margin = 5.2%

Winning Bet	Odds	Probability of win
Royal Flush	250-1	0.000001
Straight Flush	50-1	0.000008
Four of a kind	20-1	0.000142
Full House	7-1	0.000834
Flush	5-1	0.001097
Straight	4-1	0.002198
Three of a kind	3-1	0.011751
Two pair	2-1	0.024482
Pair or less	1-1	0.117555
Dealer doesn't qualify		0.227385
Push		0.000016
Fold		0.477745
Dealer wins		0.136786

Progressive Jackpot Side Bet
 Additional \$1 bet

Winning Bet	Payout(\$)
Royal Flush	10,000 or 100% of the jackpot prize
Straight Flush	1,000 or 10% of the jackpot prize
Four of a kind	500
Full House	150
Flush	100

Jackpot Size	House Margin (%)
\$10,000	43.8
\$100,000	17.5
\$159,810.53	0.0
\$1,000,000	-2.5
\$10,000,000	-28.8

STRATEGY SUMMARY

Reference: Haigh, J (1999). Taking Chances, 209. Oxford University Press.

- Always raise when you hold AKQJx or better
- With any AKQxy hand, look at the up card: raise if it has the same rank as any card you hold and if it is less than or equal to $\max(x,y)$, drop otherwise
- With any AKJxy hand, look at the up card: raise if it has the same rank as any card you hold, drop otherwise
- With any AK10xy hand or a worse AK hand, look at the up card: raise if it has the same rank as any card you hold with the exception of A,K , drop otherwise
- Always drop if your hand is worse than AK

SIC BO

Bet	Payout Odds	Probability	House Margin(%)
Specific Triple	180 to 1	1 in 216	16.20
Specific Double	11 to 1	0.074	11.11
Any Triple	31 to 1	0.028	11.11
Value of dice = 4 or 17	62 to 1	0.014	12.50
Value of dice = 5 or 16	31 to 1	0.028	11.11
Value of dice = 6 or 15	18 to 1	0.046	12.04
Value of dice = 7 or 14	12 to 1	0.069	9.72
Value of dice = 8 or 13	8 to 1	0.097	12.50
Value of dice = 9 or 12	7 to 1	0.116	7.41
Value of dice = 10 or 11	6 to 1	0.125	12.50
Any two dice combination	6 to 1	0.139	2.78
Small	1 to 1	0.486	2.78
Big	1 to 1	0.486	2.78
Specific Number			3.70
Number on one die	1 to 1	0.347	
Number on two die	2 to 1	0.069	
Number on three die	12 to 1	1 in 216	

CASINO WAR

Number of decks	House Margin(%)
6	2.88
8	2.90

BIG WHEEL

The bet types differ depending on the casino. For example at Star City:

a=Koala
b=Kookaburra
c=Lizard
d=Echidna
e=Platypus
f=Emu
g=Kangaroo

Bet	Payout Odds	Probability	House Margin(%)
a	1 to 1	0.462	7.69
b	3 to 1	0.231	7.69
c	5 to 1	0.153	7.69
d	11 to 1	0.077	7.69
e	23 to 1	0.038	7.69
f	47 to 1	0.019	7.69
g	47 to 1	0.019	7.69

BLACKJACK

Assuming independent trials (no memory)

House Margin \approx 0.5% playing Basic Strategy depending on the casino

BASIC STRATEGY CHARTS

Key

H = Hit

S = Stand

D = Double

SP = Split

DH = Only lose original wager to Blackjack then Double, otherwise Hit

SPH = Only lose original wager to Blackjack then Split, otherwise Hit

HD = Double if possible, otherwise Hit

SD = Double if possible, otherwise Stand

HARD-TOTALS

	2	3	4	5	6	7	8	9	X	A
9	H	D	D	D	D	H	H	H	H	H
10	D	D	D	D	D	D	D	D	H	H
11	D	D	D	D	D	D	D	D	DH	H
12	H	H	S	S	S	H	H	H	H	H
13	S	S	S	S	S	H	H	H	H	H
14	S	S	S	S	S	H	H	H	H	H
15	S	S	S	S	S	H	H	H	H	H
16	S	S	S	S	S	H	H	H	H	H
17	S	S	S	S	S	S	S	S	S	S
18	S	S	S	S	S	S	S	S	S	S
19	S	S	S	S	S	S	S	S	S	S
20	S	S	S	S	S	S	S	S	S	S
21	S	S	S	S	S	S	S	S	S	S

SOFT-TOTALS

	2	3	4	5	6	7	8	9	X	A
A2	H	H	H	H	HD	H	H	H	H	H
A3	H	H	H	HD	HD	H	H	H	H	H
A4	H	H	HD	HD	HD	H	H	H	H	H
A5	H	H	HD	HD	HD	H	H	H	H	H
A6	H	HD	HD	HD	HD	H	H	H	H	H
A7	S	SD	SD	SD	SD	S	S	H	H	H
A8	S	S	S	S	S	S	S	S	S	S
A9	S	S	S	S	S	S	S	S	S	S
A10	S	S	S	S	S	S	S	S	S	S

PAIR SPLITTING

	2	3	4	5	6	7	8	9	X	A
2,2	SP	SP	SP	SP	SP	SP				
3,3	SP	SP	SP	SP	SP	SP				
4,4				SP	SP					
5,5										
6,6	SP	SP	SP	SP	SP					
7,7	SP	SP	SP	SP	SP	SP				
8,8	SP	SP	SP	SP	SP	SP	SP	SP	SPH	SPH
9,9	SP	SP	SP	SP	SP		SP	SP		
10,10										
A,A	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP

INSURANCE

Number of decks	Odds	House Margin(%)
6	2-1	7.40
8	2-1	7.47

OVER/UNDER 13 WAGER

Number of decks	Over	Under
6	6.55	10.07
8	6.54	10.06

SUPER SEVENS

Assuming a 6-deck game

Bet	Pays	Probability	House Margin(%)
3 Suited Sevens	5000	1 in 62,893	10.83
3 Sevens	500	1 in 2,579	
2 Suited Sevens(first two cards)	100	1 in 809	
2 Sevens(first two cards)	50	1 in 225	
1 Seven(first card)	3	0.077	

PERFECT PAIRS

Assuming a 6-deck game with the following odds.

Bet	Odds	Probability	House Margin(%)
Perfect Pair	30 to 1	0.016	5.79
Coloured Pair	10 to 1	0.019	
Mixed Pair	5 to 1	0.039	

Assuming an 8-deck game with the following odds.

8 decks

Bet	Odds	Probability	House Margin(%)
Perfect Pair	25 to 1	0.017	4.1
Coloured Pair	12 to 1	0.019	
Mixed Pair	6 to 1	0.039	

Assuming a 4-deck game with the following odds.

Bet	Odds	Probability	House Margin(%)
Perfect Pair	25 to 1	0.014	4.35
Coloured Pair	15 to 1	0.019	
Mixed Pair	6 to 1	0.039	

PONTOON

House Margin and playing strategies still to be obtained.

PAI GOW

House Margin = 1.6% - 2.4% depending on strategies used to set the hands.

Hand Type	Probability
Particular Pair	0.012
Any Pair	0.194
Particular Wong	0.012
Any Wong	0.048
Particular Gong	0.012
Any Gong	0.097
Particular High Nine	0.012
Any High Nine	0.097

STRATEGY SUMMARY

This summary below will give you approximately 90% of your hands.

For a more comprehensive strategy refer to:

www.paigow.org/HowToPlay/books/flowchart.htm

- Look for pairs
- Play a 2 or 12 tile with any 7,8 or 9 tile - making a High 9, a Gong or a Wong
- Play two small tiles together to total 7,8 or 9
- Put the largest tile with the smallest tile