"At Least One" Probabilities

SUMMARY You Win if a Hand of "r" Cards Contains <u>At Least One</u> of Your Chosen "v" Values	"r" Number of Cards Dealt at a Time				
" v " Distinct Card Values	2	3	4	5	6
2	Top % = Probability of Winning Just One Hand Bottom % = Probability of Winning More than 50% of All the Hands that Can Be Dealt Out			58 % Probability of Winning is 59%	65 % Probability of Winning is 71%
3		55 % Probability of Winning is 67%	66 % Probability of Winning is 89%	75 % Probability of Winning is 92%	81 % Probability of Winning is 95%
4	53 % Probability of Winning is 67%	68 % Probability of Winning is 94%	78 % Probability of Winning is 99%	85 % Probability of Winning is 99%	90 % Probability of Winning is 99%
5	63 % Probability of Winning is 87%	78 % Probability of Winning is 99%	87 % Probability of Winning is 99%	92 % Probability of Winning is 99%	96 % Probability of Winning is 99%
6	71 % Probability of Winning is 98%	85 % Probability of Winning is 99%	92 % Probability of Winning is 99%	96 % Probability of Winning is 99% You Cannot Lose!	98 % Probability of Winning is 99% You Cannot Lose!

Formula:
$$1 - \frac{n C r}{52 C r}$$

v = # Distinct Card Values (You choose as yours.)

n = 52 - 4v (Number of cards in the deck that are not yours.)

r = # Cards Dealt (at a time)