How to Calculate Various Combined Chances
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To figure out various combinations, you have to add some percentages. Suppose, for example, you can make your game IF one suit breaks 3-3, OR if a finesse works in another suit. You know that the chances of a 3-3 break are about 1/3 (36%). That means you will not get a 3-3 break about 64% of the time. A finesse works ½ the time (approximately). Half of 64% is 32%. Adding 36% and 32% gives a combined chance of 68%. (Or, doing the calculation starting with the finesse: the finesse works 50% of the time. Of the remaining 50% of hands when the finesse fails, you will get 3-3 break about 36% of the time. 36% of 50 is 18. Adding 18% and 50%, you come to the same answer of 68%.)

Sometimes you need to know the approximate odds of finding an honor singleton or doubleton. That is based on the odds of distribution for that number of defensive cards and how many honors versus low spot cards are out. For example, suppose the **opponents hold 7 cards**. They rate to divide 4-3 about 62% of the time; 5-2 about 31% of the time and 6-1 a bit under 7% of the time. Suppose you need a singleton honor to drop. The odds of a singleton are 7% (6-1 break 7% of the time). Since there are 6 low cards involved and only one honor, the odds of that honor being singleton are one in 7 (about 14.29%) of the 7% [chance for ANY singleton] or just under 1%. In other words, **the chance of dropping a singleton King with 7 cards out is about 1%.** (Clearly a 50% finesse is a much better shot!)

If you need a doubleton honor, i.e. Qx, to drop, the odds of ANY doubleton are 30.52%. With 6 small cards and 1 honor card, you have one chance in 7 (14.29%) that the doubleton will be an honor—but you get that 1 in 7 chance twice. So, your actual chances are only about 4.36% PLUS 4.36 or about 8.72%. If you add the chances of a singleton queen (1%), the total is about 9.72%. Or, **the chances of dropping a doubleton queen with 7 cards out is almost 10%**. (Finesse is still much stronger chance.)

If you need a trebleton honor, i.e. Jxx, to drop, the odds of a 4-3 break are 62%. With **7 cards out**, the chances of you dropping a trebleton honor are 1 in 7 (14.29%), but you get 3 tries at it. 14.29% of 62% is 8.8598%. Multiplying that by 3 equals 26.58%. Adding in almost 10% for the doubleton honor and 1% for the singleton honor and your total is about 37%. Or, **the chances of dropping a trebleton jack with 7 cards out is about 37%**. (Finesse is better odds.)

If the **opponents hold 6 cards**, they will break 4-2 about 48% of the time; 3-3 about 36% of the time and 5-1 about 15% of the time. The chances of a singleton honor are 1 in 6 (or 16.66%). Taking 16.66% of 15% (ANY singleton) gives **about a 2% chance of dropping a singleton** honor (presumably the **King**).

If the opponents hold 6 cards, the chances of dropping a doubleton honor are 1/6 of 48% times 2 or about 16%. Adding the chance of dropping a singleton honor gives a total chance of **about 18% that the queen will fall singleton or doubleton with 6 cards outstanding**.

If the **opponents hold 6 cards**, the chances of dropping a trebleton honor are 36% (the 3-3 breaks). Add in the potential for a singleton honor and a doubleton honor and **the total chances of dropping a jack in one, two or three rounds (with 6 cards outstanding) is 54%** (better odds than a straight finesse for the jack).

If **opponents hold 5 cards**, they will break 3-2 about 68% of the time, 4-1 about 28% of the time and 5-0 about 4% of the time. The **chances of dropping a singleton King** are 1 in 5 of 28% or **about 5.6%**. The **chances of dropping a doubleton hono**r are 2 in 5 of 68% or about 27% plus an additional 5% for a total of **about 32%.** The **chances of dropping a trebleton honor** are 68% (all of the 3-2 breaks) plus 5% (chances of singleton honor with 4-1 break) or a total of **73%.**