



Most people understand the rules for Freecell, but not everyone understands Freecell PowerMoves. Understanding PowerMoves is one of the most important keys to winning Freecell, and knowing how they work will increase your chances of winning Freecell.

A Freecell powermove (also called a supermove), is simply a shortcut move. It lets you move a sequence of cards in one move, instead of doing lots of individual moves.

It isn't a special move though.

It's just a shortcut, to move all the cards in the sequence in one move, rather than several moves using the available freecells and empty columns.

The number of cards you can move in a supermove sequence is based on how many freecells and empty columns are available. Some freecells games implement this incorrectly, and let you move any number [idnpoker](http://idnpoker.com) of cards in a sequence.

But this is wrong. If you couldn't move the sequence using individual card moves, then you can't move the sequence using a powermove either.

A freecell supermove uses the empty columns and freecells as efficiently as possible, to ensure you can move the maximum number of cards. To work out how many cards can be moved, the following formula is used:

$(1 \text{ number of empty freecells}) * 2 ^ (\text{number of empty columns})$

This is easier to understand by looking at the following chart...

A: Empty Columns

B: Empty Freecells

C: Card Sequence Length

A – B – C

0 – 0 – 1

0 – 1 – 2

0 – 2 – 3

0 – 3 – 4

0 – 4 – 5

1 – 0 – 2

1 – 1 – 4

1 – 2 – 6

1 – 3 – 8

1 – 4 – 10

2 – 0 – 4

2 – 1 – 8

2 – 2 – 12

2 – 3 – 16

2 – 4 – 20

This assumes you are moving the sequence to a non-empty column. If you are moving into an empty column, then the column you are moving into does not count as empty column.

A freecell powermove can always be broken down into several individual moves. Suppose you have 1 empty column, and 1 empty freecell. From the chart above you can see that we can move a sequence of 4 cards. Suppose we want to move 9,8,7,6 sequence onto a 10.

The moves would proceed as follows:

- Move the 6 to the freecell (Now one empty column, no empty freecells)
- Move the 7 to the empty column (Now no empty columns, and no empty freecells)
- Move the 6 onto the 7 (Now no empty columns, and one empty freecell)
- Move the 8 to the freecell (Now no empty columns, and no empty freecells)
- Move the 9 onto the 10 (Now no empty columns, and no empty freecells)
- Move the 8 onto the 9 (Now no empty columns, and one empty freecell)
- Move the 6 to the freecell (Now no empty column, no empty freecells)
- Move the 7 onto the 8 (Now one empty column, and no empty freecell)
- Move the 6 onto the 7 (Now one empty column, and one empty freecell)

So in this example, the powermove has saved us time by allowing us to do 1 move instead of 9.

There are a few things to notice in this example:

- The freecells and empty columns are used temporarily. At the end of the powermove, the number of empty freecells and columns is the same as at the start of the powermove.
- The freecells and empty columns are used as efficiently as possible. There is no way that any more cards could have been moved.
- Only the empty freecells and empty columns were used. Cards in other stacks were NOT used as temporary storage spaces.

This last point is particularly note-worthy. A supermove will only use the freecells and empty columns. It doesn't account for any other cards in the tableau. This means you can often move a longer sequence by breaking doing the moves yourself, or doing several powermoves.

In the example above, if there had been a spare 9 in the tableau with the right color, a much longer sequence could have been moved. The 8,7,6 sequence would be moved onto the other 9 first. Then we could move another 4 cards using a normal powermove (Because we still have an empty column and freecell). So we could now move 9,10,J,Q onto a King, and then move the 8,7,6 onto the 9 again. So by breaking the sequence up into 2 moves, we are able to move a sequence of 7 instead of 4.

Being aware of this short-coming of supermoves will allow you to move longer sequences, which helps a lot in winning some of the harder freecell deals.

The other thing to be aware of with supermoves is how important empty columns are. If you look back to the chart above, you will see that empty columns are very valuable in freecell. Four empty freecells lets you move a sequence of 5 moves, while two empty freecells and two empty columns lets you move a sequence of 12! So try and empty up columns as soon as you can!