

How to Perform Zeno's *Two Card Pickup*

Location: <https://smmcroberts.net/zeno/twopickup>

Effect

The spectator selects two on-screen cards from a pack of 52 face-up cards. The other 50 cards are removed, and the two selected cards are “tossed” into the air, landing randomly. The performer (who has been looking away all this time) now looks at the screen and gives the name of the face-down card. The face-down card is then clicked to turn it over, and see that the performer was correct.

Patter

Have you ever played the game “Fifty-two Pickup”? It's a game you usually only play once. Because, if you say that you've never played it, your questioner will throw the entire pack of 52 cards into the air, letting them land where they may. “There are fifty-two cards,” he or she will say, “now pick them up!”

But the version we're going to play isn't so mean. In fact, you may want to play *our* version again. It's called *Two-card Pickup*. It only uses two cards, and instead of picking them up, Zeno is going to telepathically communicate one of the face-down cards to me.

What I'll have you do, while I look away, is to select any two cards from the deck on the screen. Then Zeno will toss them into the air, and once they've landed – with at least one card face down – let me know.

Now, because it's random, sometimes when the cards are thrown, both of them wind up face up when they land. When that happens, a button will appear for you to click in order to toss them again. Just keep tossing them until at least one of the cards lands face down.

[As you figure out the card, don't blurt it out all at once. Rather, reveal the card a little at a time: first the color, then the suit, then the value. That way it appears that you are struggling to receive the thought from Zeno.]

Explanation

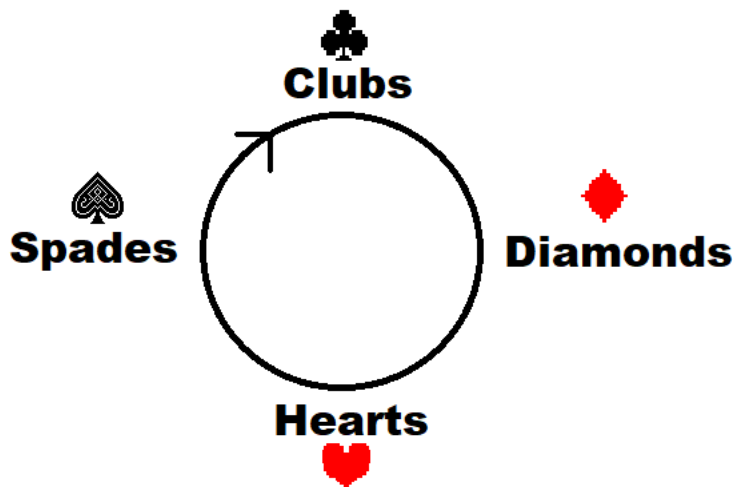
The arrangement of the cards conveys the value of the face-down card.

Let's start with one face-down and one face-up card.

The face-up card is the Anchor-card. The face-down card is the Target-card. You will add some value to the Anchor-card's suit to arrive at the Target-card's suit. You will also add some value to the Anchor-card's value (Ace=1... King=13) to arrive at the Target-card's value.

Suit Addition

The suits are to be thought of in alphabetic order: **Clubs, Diamonds, Hearts, Spades**. Think of them as arranged on a circle, so that when you want to add 2 to Spades you would get Diamonds.



The value you add to the Anchor-card's suit is determined by the relation of the two cards:

1. Anchor on Top (i.e., above Target-card)
2. Anchor on bottom (i.e. below Target-card)
3. Touching, or closer to Target
4. Distant from Target [same as adding zero; you arrive at the same suit as the Anchor for the Target].

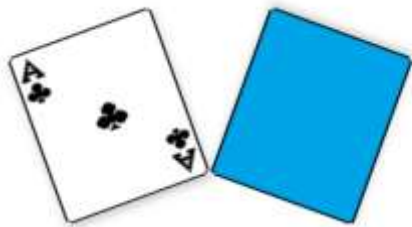
I think of it from the perspective of a boat: First the anchor is *above* the water. Second, the anchor is throw overboard and is then *under* the boat. Third, the anchor *touches* the bottom. Fourth, the boat drifts a ways *away* from the anchor.



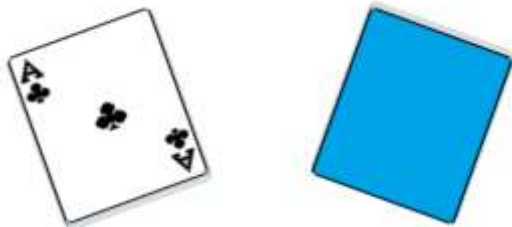
1 Anchor Over



2 Anchor Under



3 Touching



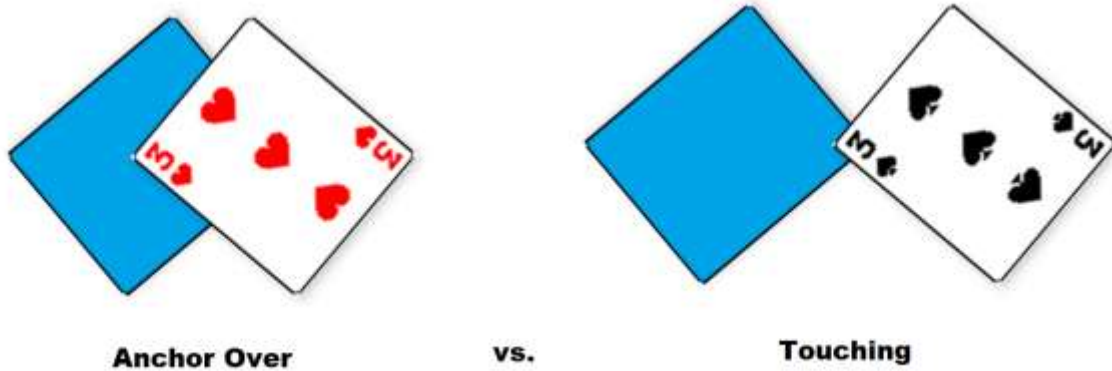
4 Distant

“Touching” is relative. What it really means is that the card on the right has moved *closer* to the card on the left than it was originally.

“Distant” means the card on the right has not moved towards the left from its original position.

Example: If the Anchor-card is a Diamond, and it is below the Target-card, then the Target-card is a Spade (because we go two places from Diamonds, to arrive at Spades).

Note that when “touching” cards are at extreme angles (e.g. the combination of ,50° and -50°) they may overlap *slightly*. But true Under and Over arrangements overlap by *a lot*. Here is an illustration of the difference:



Value Addition

The values are Ace=1... King=13.

The value you add to the Anchor-card’s suit is determined by the angles of the two cards:

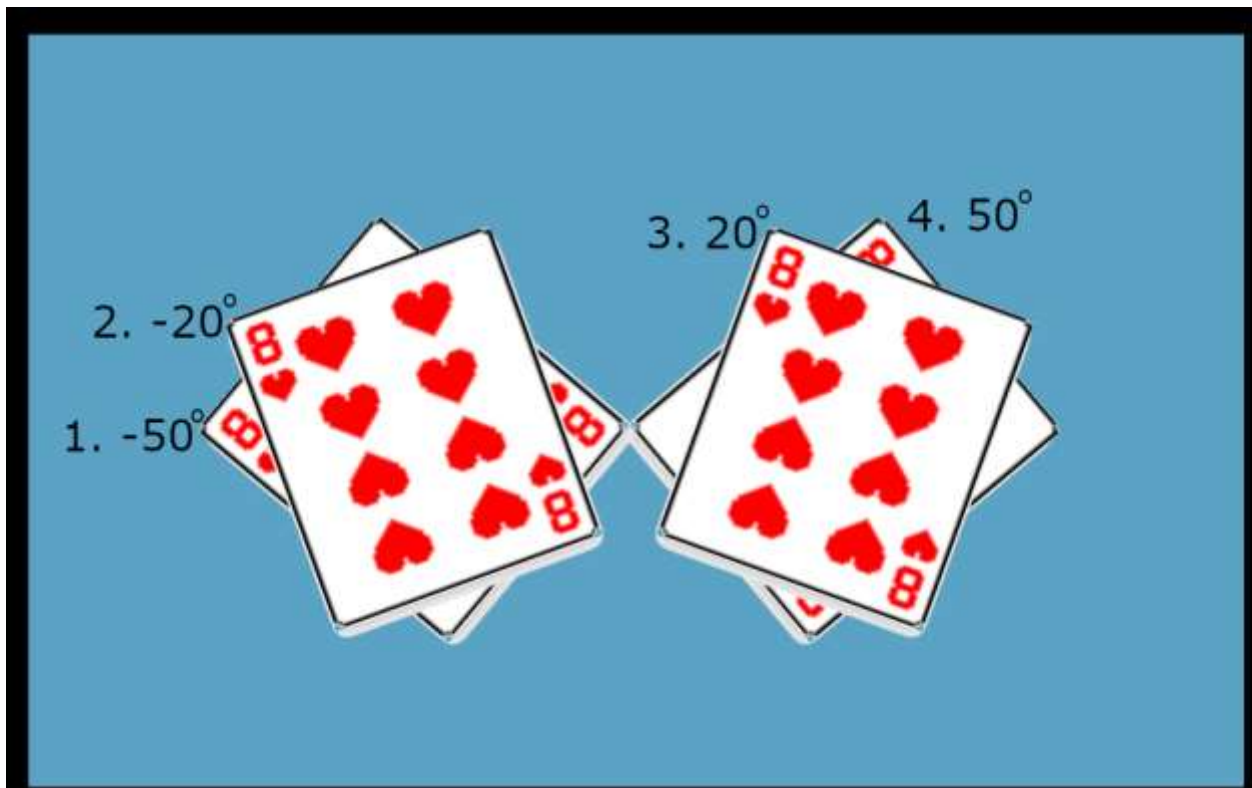
Anchor°	Target°	Add
0	-50	0
-50	-50	1
-50	-20	2
-50	20	3
-50	50	4
-20	-50	5
-20	-20	6
-20	20	7
-20	50	8
20	-50	9
20	-20	10
20	20	11
20	50	12

The angle of the Anchor-card gives you the broad strokes, and the angle of the Target-card gives you the specific number. For instance, an Anchor-card at a 20 degree angle tells you you’re going to add a number between 9 and 12. The Target-card then tells you which of those four numbers it will be.

Think of it this way: excluding the special case of zero degrees [used when the Target has the same value as the Anchor: e.g., Ten of Hearts and Ten of Diamonds], there are four possible angles:

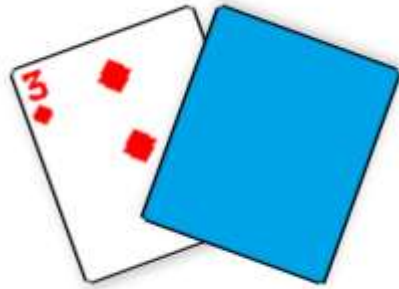
1. -50°
2. -20°
3. 20°
4. 50° [not used on Anchor]

Each of the four angles represents a group of four numbers (on the Anchor) or four specific numbers (on the Target).



Note that a 20 degree tilt is slight, whereas with a 50 degree tilt two of the corners of the card are nearly horizontal. A zero degree tilt (not shown) is, of course, the card straight up and down.

An example



The Anchor-card (3-Diamonds) is below the Target-card, so we add two to the suit, which gives us Spades. (Recall the order: Clubs, Diamonds, Hearts, Spades.)

The Anchor-card is at a -20° angle. This is the second possible angle, so it gives us the second range of four numbers: 5-8.

The Target-card is at a 20° angle. This is the third possible angle, which tells us to add the third number of the range (5-6-7-8), which is 7. So we add 7 to the 3 of the Anchor-card, and get 10. So, the Target-card is the 10 of Spades.

Both cards face-down

When both cards are face-down, the Anchor-card will be on the left, and the Target-card on the right. Just pretend that the Anchor-card is the Ace of Clubs, and proceed as usual.