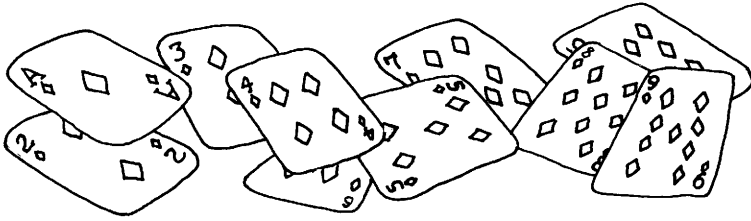


SUITS UP, SUITS DOWN

SUITS UP, SUITS DOWN is a game that helps children calculate sums in their heads. There are several versions, each one harder than the last. The easiest version requires ten cards, the Ace through Ten of a single suit (the Ace, of course, has a value of one).



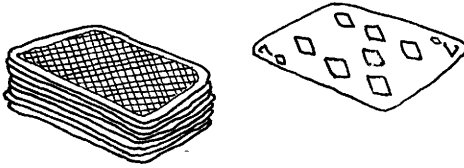
GRADES

second and third

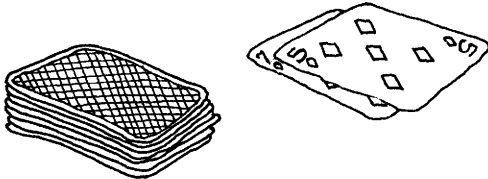
MATERIALS

a deck of cards (picture cards
and Jokers removed)

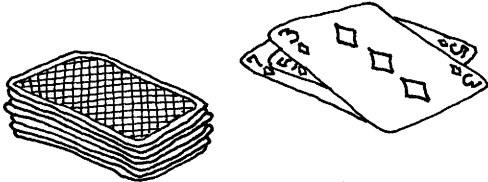
Shuffle the cards and stack them face down. Now turn over the top card.



Seven. That's your starting number. Turn over another card.



Five. Add five to seven and you get twelve. Turn over a third card.



Three. Add three to twelve and you get fifteen.

Add the fourth card, then the fifth. By now you may be tempted to use a paper and pencil to determine your sum, but that's not allowed. In this game, everything has to be done in your head. So keep turning over cards and making mental calculations. When you add the tenth card, you should have exactly fifty-five. Is your total something else? You slipped up. But don't worry, you can always take another turn. In fact, you can take another turn even if you correctly hit fifty-five. Reshuffle the ten cards. You'll get a new numerical arrangement, and, therefore, a new set of addition problems.

Here's a second version of SUITS UP, SUITS DOWN. Use the same ten cards. This time, though, start with the number fifty-five and subtract as you turn over cards. When you subtract the tenth card, you should hit zero.

Want a version that's twice as hard? Use two suits, making twenty cards altogether. Now you should add up to 110, or subtract from 110 down to zero. How about three suits? With thirty cards you get up to 165. Finally, put all four suits into play. Now you must mentally calculate up to or down from 220!

I played this game with Ben, a young math whiz. Ben took great pride in his remarkable ability to calculate without paper and pencil. This game offered him the perfect opportunity to show his stuff, and he loved it. But would a less advanced student enjoy the game too? I tried it with Renée, a third-grader who struggles with math. The game wasn't easy for Renée. Nevertheless, the first time we played, with a hint or two from me, she did fifty-five. A great accomplishment!

Renée and I played SUITS UP, SUITS DOWN many times in the coming months. It was a perfect five-minute warm-up for our tutoring sessions. I was careful not to overtax her. I let her play the simplest version—adding with a single suit—for many weeks before even suggesting something different. Eventually I proposed two-suit addition. She liked the change. Renée was pleased with how well she handled so many cards. In time, I introduced her to the subtraction version of SUITS UP, SUITS DOWN. Like many children, Renée found subtraction harder and more frustrating than

addition. For Renée, adding twenty cards up to 110 was, in fact, easier than subtracting ten cards from fifty-five down to zero. Soon, however, Renée could subtract with a calculator's precision.

Give SUITS UP, SUITS DOWN a try. In less than ten minutes you'll know if it gets thumbs-up or thumbs-down in your house.

