## Fibonacci Trick

Write down ten blank spaces in a column on a piece of paper, and turn your back. Have your victim ...

1. write down any two small numbers as the first two numbers in the column,
2. add these two numbers to make a third number to write below the first two,
3. add the second and third numbers in the column to make a fourth number to write in the column,
4. continue this pattern (of adding the last two numbers to get the next number to write down) until all ten spaces have been filled.

Turn back around and challenge your victim to a race to add all of the numbers together, but allow the victim to use a calculator. You can win by adding only two numbers in your head:

- Take the Seventh number in the column and put a 0 on the end.
- Add this number to the Seventh number itself.
- The answer is the same as the (poor) victim's who is adding all ten numbers together.

It makes a better trick for you to write down your answer as quickly as you can and then wait for the spectator to catch up. This also lets you secretly use paper and pencil if you don't feel comfortable doing the math in your head. When you reveal that your answers are the same, everyone will be impressed with your lightning-fast addition.

## Columns for Fibonacci Trick

| 1 |  | 1 |  |  |
| :---: | :--- | :--- | :--- | :--- |
| 2 |  | 2 |  |  |
| 3 |  | 3 |  |  |
| 4 |  | 4 |  |  |
| 5 |  | 5 |  |  |
| 6 |  | 6 |  |  |
| 7 |  | 7 |  |  |
| 8 |  | 8 |  |  |
| 9 |  | 9 |  |  |
| 10 |  |  | 10 |  |
| SUM |  |  | SUM |  |

## Who's the Magician?

Deal 5 five-card hands to 5 people, and have each person select a card and put it on top of their stack of cards. Collect the piles and then allow a spectator to "shuffle" the deck by doing the following as many times as they want:

- Hold the cards in your hand face down.
- Deal the cards into two piles on the table.
- Place one pile on top of the other pile and pick the cards up again.

Once the spectator is happy with the mixing in this manner, the magician moves on to "the big finish."

- The spectator gives the packet a single cut.
- The magician deals the five poker hands out again.
- The magician asks the spectators, "Does anyone have their original card?"
- The one spectator who has his own chosen card turns out to have all of the chosen cards!

There is no secret to this trick. It works by itself by purely mathematical principles! Can you see why!

Thanks to Doug Ensley for these problems.

