FIBONACCI MAGIC CARDS
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According to the well-known theorem of Zeckendorf, if adjacent members of the Fibonacci sequence (1, 2, 3, 5, 8, 13, $\cdots$) are not allowed in the same representation, then each positive integer can be expressed uniquely as the sum of one or more Fibonacci numbers. On the basis of this unique representation theorem, each integer is associated with just certain Fibonacci numbers. For example: 35 = 34 + 1; 51 = 34 + 13 + 3 + 1.

Accordingly, if one places on a set of cards those integers which have a given Fibonacci number as a component, one creates a set of magic cards with the following property. Let someone select all the cards in the set which contain a certain integer. Knowing the particular Fibonacci number associated with each card, it is then possible to add these numbers together and thus be able to say what the selected integer was.

The following sets of integers provide the numbers for each card, the smallest number on the card being the Fibonacci number which is a component of each of the integers on the card. One could possibly conceal the trick more effectively by a random distribution of the numbers on each card.

Card 1

1, 4, 6, 9, 12, 14, 17, 19, 22, 25, 27, 30, 33, 35, 38, 40, 43, 46, 48, 51, 53, 56, 59, 61, 64, 67, 69, 72, 74, 77, 80, 82, 85, 88, 90, 93, 95, 98

Card 2

2, 7, 10, 15, 20, 23, 28, 31, 36, 41, 44, 49, 54, 57, 62, 65, 70, 75, 78, 83, 86, 91, 96, 99

Card 3

3, 4, 11, 12, 16, 17, 24, 25, 32, 33, 37, 38, 45, 46, 50, 51, 58, 59, 66, 67, 71, 72, 79, 80, 87, 88, 92, 93, 100

Card 4

5, 6, 7, 18, 19, 20, 26, 27, 28, 39, 40, 41, 52, 53, 54, 60, 61, 62, 73, 74, 75, 81, 82, 83, 94, 95, 96

Card 5

8, 9, 10, 11, 12, 29, 30, 31, 32, 33, 42, 43, 44, 45, 46, 63, 64, 65, 66, 67, 84, 85, 86, 87, 88, 97, 98, 99, 100

Card 6

13, 14, 15, 16, 17, 18, 19, 20, 47, 48, 49, 50, 51, 52, 53, 54, 68, 69, 70, 71, 72, 73, 74, 75

Card 7

21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88

Card 8

34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54

Card 9

55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88

Card 10

89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

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CORRECTIONS TO A FIBONACCI CROSTIC

H. 104 should be 102
J. needs two 144
In diagram O 81 should be G 81
                F 93 should be E 93