
GAMES WITH THE POCKET CALCULATOR

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The activities reprinted here have been selected from a book which is available from Dymax, P.O. Box 310, Menlo Park, California 94025.

NUMBER PLEASE

This is another fast-paced party game which is easy to learn. It involves the addition of two telephone numbers. Players predict which digit will be repeated most frequently in the resulting sum. You win by being fast and accurate or just plain lucky.

NUMBER OF PLAYERS: Two or more. Since each player has to choose a different digit, more than 10 cannot participate.

APPROXIMATE TIME REQUIREMENT: Each round of the game lasts for about three to five minutes.

SKILLS INVOLVED: Addition of big numbers and a quick draw.

CHANCE FACTOR: There is an element of chance depending upon the skill levels of the players.

SPECIAL REQUIREMENTS: With a small number of players, you may permit players to shout out different digits to indicate their selection. To avoid more than one player claiming that he was the first to select a particular digit, it is a good idea to use number cards or tiles with a large group. There are 10 of these cards, each with a different digit - 1, 2, ... 9, 0 - placed in the middle of the play area within reach of all players.

PLAY OF THE GAME:

1. The first player announces a telephone number slowly and clearly. The second player does the same, using a different telephone number from another exchange so that the first three digits are not the same.

Kathy announces her number, 631-4214. Vince checks in his little black book and comes up with 976-2285 (and, smiling lecherously, writes down 631-4214 in his book).

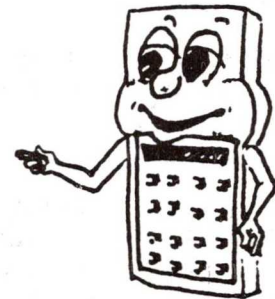
- Each player (including the two who supplied the telephone numbers) grabs a number card to indicate what he/she thinks will be the most repeated digit in the sum.

Lucy attempts to add the two numbers in her head and gets a headache. She gives up and grabs a random card which has the number 7. Charlotte begins to add and gets two nines as the last two digits of the sum. She decides that is good enough and reaches for the card with the 9. However, Vince makes a faster grab and Charlotte picks up a zero in disgust. Lillian uses her feminine intuition and selects a card with a 3. Kathy has been doing some careful adding and sees 6 as a strong contender.

- One player now uses the calculator to add the telephone numbers. Each player gets a score which equals the number of times her/his selected digit appears in the display.

The sum in the display is 16076499. Here's how the scoring goes:

Player	Selected Digit	Score
Lucy	7	1
Charlotte	0	1
Vince	9	2
Lillian	3	0
Kathy	6	2



Thus at the end of the first round, Vince and Kathy are tied with a score of 2 points each.

- The game continues with the next two players announcing the telephone numbers. The first player to accumulate a total score of 11 points wins the game.

During the next round, Lucy announces the phone number of her hair dresser, 439-2615. Charlotte gives her office number, 331-6161. The players perform their respective mental gymnastics and again snatch digits from the pile of tiles. With a characteristic flourish, Vince adds the two phone numbers on the calculator and gets a total of 7708776. Here is the summary table:

Player	Selected Digit	Score for this Round	Total Score
Lucy	8	1	2
Charlotte	0	1	2
Vince	7	4	6
Lillian	5	0	0
Kathy	6	1	3

So, at the end of the second game, Vince jumps ahead with a total of 6. However, in the later rounds, Lillian comes from behind to reach the total of 11 points and wins the series.

TOWARDS A MILLION

This is a game for people who think big. Players listen to a storyteller as he provides a running commentary on what he is doing with a bunch of big numbers in the calculator. All players know what numbers and what operations are being used, but they are left to guess the outcomes. Whenever a player thinks that the resulting number is close to a million, he may stop the storyteller and peek at the display. Each player's score is the difference between the number he peeked at and 1,000,000. The player with the *smallest* score wins the game.

NUMBER OF PLAYERS: Three or more. For a two-person game, see variations.

APPROXIMATE TIME REQUIREMENT: Depending upon the storyteller's line and the number of players, the game may last from three to six minutes.

SKILLS INVOLVED: Addition and multiplication of big numbers. Estimating results.

CHANCE FACTOR: A little. Sometimes if you get lost, you may score by being lucky. Also depends on the whims of the storyteller.

PLAY OF THE GAME:

1. One player is selected to be the storyteller. He performs a series of additions and multiplications using any numbers he wants. He does not permit the other players to see the display in the calculator, but reports to them each new number and each operation he is using.

Raja, the first storyteller, spins this yarn: "I multiply 198 by 40 ... I multiply the result by 125 ... I add 9800 ... I add 200 ... I multiply by ten ..."

2. The other players attempt to keep track of the shifting number. Whenever a player feels that the number has become a million or nearly so, he stops the storyteller, takes a peek at the display and secretly writes down what he sees. More than one player may stop the storyteller at the same time. Play continues until all players have their peeks at the display.

Here's a summary of what really happens during Raja's story and how each player interprets it: When Raja multiplies 198 by 40 he gets 7920. Harold and Charlotte mentally round off the 198 to 200 and estimate the product as 2000. Thiagi and Lucy, the other two players, attempt the actual multiplication in their heads. Thiagi gets 7620 which is incorrect and Lucy gets 7920 which is correct.

When Raja multiplies by 125, he gets 990,000. Harold multiplies his estimate of 8000 by 125 and gets a million. Excitedly, he asks Raja for the display. Harold writes down the 990,000 on a piece of paper. Charlotte gets the same estimate, but she remembers that she rounded off upwards earlier and decides to wait one more round. Thiagi now decides to round off his earlier incorrect product of 7620 to 7500, multiplies that by 125, loses a zero at the end of the result, and gets a way-off estimate of 93,750. Lucy gives up trying and begins to daydream.

When Raja adds a 9800, he gets 999,800. Charlotte decides to stop him. She writes down the 999,800 from the display and feels happy about being close to a million. Thiagi does not understand why people are rushing to stop the story; his estimate is still around 100,000.

When Raja adds the 200 next, Lucy wakes up and decides to halt the storyteller. She is pleasantly surprised to find that she has hit the million on the nose. Thiagi still thinks the number is close to a hundred thousand.

When Raja multiplies the number by ten, he gets 10,000,000. Thiagi feels that his patience is rewarded. He halts the storyteller and expects to find the million on display. He discovers the ten million figure with a shock.

3. Game ends after all players have a peek at the display. Each player now finds the difference between the number he has written down and 1,000,000, using the calculator if necessary. The player with the smallest difference wins the game.

Here are the various differences:

Harold:	$1,000,000 - 990,000 = 10,000$
Charlotte:	$1,000,000 - 999,800 = 200$
Lucy:	$1,000,000 - 1,000,000 = 0$
Thiagi:	$1,000,000 - 100,000 = 900,000$ (sic)

VARIATIONS

1. Instead of the million, any other number may be selected to be the goal number. The play of the game remains the same. This is especially desirable if your calculator has only a six-digit display!
2. The storyteller may begin with a million and use subtraction and division to gradually reduce the number to zero. Players try to stop him as close to zero as possible. When some players peek, the number may have already become negative.
3. With just two players, two rounds of the game have to be played to see who stops the other closest to the million. An additional rule may be added to require that both players get within a thousand of the million mark at least once during their story.