

# ABAKU

## GAME RULES

**CONTENTS** For 2 - 4 Players / Ages 6 to Adult  
100 number tiles, tile bag, four racks, gameboard, short game rules

**Caution: Not suitable for children under 3. Contains small parts.**

### OBJECT

In the Abaku game, players are using tiles marked with 0 – 9 numbers to create equations on the gameboard. Addition, subtraction, multiplication, division, squares and cubes and square and cube roots of whole numbers are allowed.

**An equations is made up of only two terms, one operation and a solution (e.g.,  $1 + 1 = 2$ ). Equations are made up from positive whole(natural) numbers!**

### SETUP

1. Every player draws one tile from the bag. The one who gets a tile with the lowest number starts the game. The remaining tiles are put back into the bag and shuffled. Then, every player draws five tiles from the bag and puts them in their rack.

### GAMEPLAY

2. The first player creates an equation by putting two or more tiles on the gameboard in horizontal or vertical line so that one of them lies on the central (start) square.
3. The game does not include mathematical signs. Therefore, players always explain the equations loudly (for example: "Three plus one is four"). The equations are read from left to right or downwards. Player's turn ends by announcing and noting the score and refilling the number of their tiles to five from the bag. The game runs clockwise.
4. The second player must then directly join the tiles on the gameboard with their own tiles to create an equation. The tiles can be added in one line horizontally or vertically and must be part of one equation. The adjoining tiles must form a valid equation. It is not allowed to add tiles diagonally.
5. All tiles on the board from previous rounds can be contained in new equations arbitrarily.
6. **Equations are created:**
  - a. By adding one or more tiles to tiles already lying on the board. The new equation must contain at least one new tile and at least one tile on the board (see Turn 2, 3).
  - b. By adding an equation horizontally or crosswise to the tiles on the board. The equation must contain at least one tile on the board or must form a new equation with at least one tile on the board (see Turn 4, 6).
  - c. By adding an equation parallelly to the tiles on the board. The adjoining tiles must form new equations (see Turn 5, 7, 8).
7. Tiles must not be removed or replaced after being placed and counted in a turn (except joker tile).
8. Player on turn can place the tiles on the gameboard, change the tiles or skip the turn. He can choose only one option at a time. If the player wants to change their tiles, he or she announces how many of the tiles they want to change (1 – 5). He or she does so transparently but gets no points in this turn.
9. **Joker** (empty tile) is added according to standard rules. The player adding a joker on the gameboard must say aloud which number it represents (0 – 9). The joker can be used again in the game but it has to be replaced by a regular number tile. The replaced joker can be used directly or kept for another turn.

10. **Zero:** Zero cannot be used as an independent number. Zero cannot be added, subtracted, cannot multiply or divide numbers. Zero cannot be a final result of an equation.

Zero adjoining tiles on the board doesn't have to form an equation (see Turn 5). But if the zero tile is the only from the newly added tiles that is adjoining the tiles on the gameboard then they must form an equation together.

11. **Clues** like calculators or mathematical tables are allowed upon agreement of the players. When someone discovers a mistake in an equation they must announce it in the actual turn. If the equation isn't correct, the player takes the tiles back, loses the turn and loses the same amount of points they would have got.

12. **Ending the game:** The game ends when all tiles have been drawn and one player uses their last tile or when all possible plays have been made.

### SCORING

1. The scorekeeper notes each player's score after each turn.
2. Player gets one point for each tile that is part of a new equation in the given turn. **This applies to all equations newly created in a turn.**
3. **Number bonus:** This bonus doubles or triples the score of a tile placed on it.
4. **Equation bonus:** The bonus doubles or triples the score of an equation when one of its tiles is placed on it.
5. Number and equation bonus count only on the turn in which they are played.
6. When the game ends, each player's score is reduced by the sum of their unplayed tiles. The player who used all their tiles (closed the game) can add one point for each unplayed tile of other players.

### WINNER

Player with the highest final score wins the game.

### GAME VARIATIONS:

Players can agree on game variations. We recommend the following:

- a. Numbers on tiles represent their score.
- b. Keep record of the number of tiles used in a turn.
- c. Add tiles diagonally.

### GAMEBOARD

You can play with yourself trying to get the highest score possible. Or you can try to compose the tile to cover as much of the gameboard as possible leaving as few squares empty as possible. Or you can compose magical squares.

For various options, you can use the blank grid gameboard, 17 x 17 squares. For classic Abaku game, use the 15 x 15 squares gameboard with bonuses.

### INFO

All information as well as detailed rules of Abaku are available on [www.abaku.org](http://www.abaku.org)

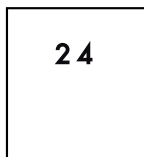
The Abaku game contains 100+1 tiles. If you need more tiles, you can get them on [www.abaku.org](http://www.abaku.org) where you will find more games such as abacubes, abacards or electronic application. The electronic application offers playing against robots or other players online or joining the Abaku league.

## EXAMPLES OF EQUATIONS AND POINT COUNT

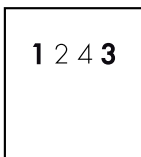
Newly added numbers are shown in bold type. The following equations created in this turn are in frame.

**TURN1/**  $2^2 = 4$ ; **TURN2/**  $12 : 4 = 3$ ; **TURN3/**  $6 - 4 = 2$ ,  $\sqrt{4} = 2$ ; **TURN4/**  $7^2 = 49$ ,  $6 \times 4 = 24$ ,  $2^2 = 4$ ; **TURN5/**  $10 : 5 = 2$ ,  $2 + 5 = 7$ ;  
**TURN6/**  $8 - 3 = 5$ ,  $6 + 42 = 48$ ,  $2 \times 4 = 8$ ,  $\sqrt{9} = 3$ ; **TURN/**  $38 - 3 = 35$ ,  $24 : 3 = 8$ ,  $\sqrt{9} = 3$ ; **TURN/**  $3 : 3 = 1$ ,  $3 \times 31 = 93$ ,  $6 - 3 = 3$ ,  $2 + 1 = 3$

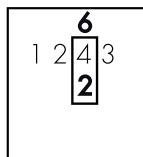
Turn 1: Skore 2



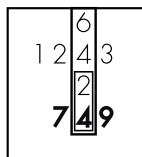
Turn 2: Skore



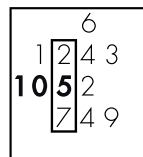
Turn 3: Skore



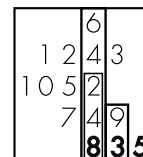
Turn 4: Skore 9



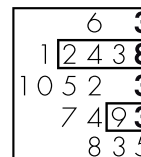
Turn 5: Skore 7



Turn 6: Skore 13



Turn 7: Skore 11



Turn 8: Skore 14

