

Have a Half

2 players

Halving to divide by two and four

Purpose

In this game, the students use a halving strategy to divide by two and four. They are required to calculate one-half and one-fourth of two-digit numbers and three-digit multiples of ten.

Materials

Each pair of players will need

- A 'Have a Half' game board (page 58) as shown below.
- One (1) set of numeral cards. Copy page 59 as shown below. Cut out and laminate the cards to make one set.

Each player will need

- Twelve (12) counters (a different color for each player).

90	34	180	13	80
22	30	60	15	12
40	24	45	24	160
48	15	60	30	44
80	26	120	17	90

48	52	60
68	88	96
120	160	180
240	320	360

How to Play

The aim is to arrange four counters adjacently in a horizontal, vertical, or diagonal line.

- The cards are shuffled and placed face down in a stack.
- The first player draws the top card and either halves the number or halves and halves it again to obtain an answer that is available on the game board.

Example: Rick draws 68. He can halve it to make 34 ($68 \div 2$) or halve and halve it again to make 17 ($68 \div 2 \div 2$).

- The player claims the answer on the game board by covering it with a counter. A calculator can be used if an answer is disputed. Although some numbers appear more than once on the game board, a player may only claim one number for each turn. If both possible answers are unavailable, the player misses a turn.
- The card is returned to the bottom of the stack.
- The other player has a turn.
- The first player to make a line of four adjacent counters is the winner.

Reading the Research

There is clear evidence that many students are capable of devising sophisticated mental strategies to compute. These strategies have the potential for expanding and enriching their knowledge of mathematics at the conceptual level (Reys & Barger, 1994).