



FIND THE ROOT!

Age Range: 6th Grade +

Number of players: 2 or more

Learning: estimating, square roots

You will need:

- A calculator
- A piece of paper



Instructions:

- Player 1 is the number chooser. The other players are the guessers.
- Player 1 chooses a 2 digit number and squares the result using a calculator. Player 1 writes this number down for all the other players to see on the paper.
- Player 2 then has the calculator and has a go at guessing the number that Player 1 chose and squares that number. Player 2 writes down their 2 digit number and the answer on the same piece of paper.
- Player 3 then has the calculator. Player 3 can see Player 1's original number and also the guess that Player 2 made and the answer. Player 3 then has a go at guessing the number and squares the result. They record their number and the answer on the paper.
- Play passes to all the other players in the group, then back to Player 2 and so on.
- The first player who finds the correct 2 digit number that Player 1 chose is the winner.
- If there are only 2 players, then Player 2's job is to find the number Player 1 chose with the fewest guesses.
- Once Player 1's number has been found, Player 2 gets to choose a new 2 digit number and play starts again.

Example of Play

Player 1 chooses 37 and squares the number. Player 1 writes the number 1369 on the paper. Player 2 guesses 24 and squares that number. Player 2 writes the number 24 → 576 on the paper.

Player 3 guesses 45 and squares that number. Player 3 writes 45 → 2025 on the paper.

Variations:

- Easier game – only allow numbers up to 50 to be squared.
- Harder game – allow any 2 or 3 digit number to be chosen.
- Each player keeps their guesses and answers secret.