

# Playing Games

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What is a game?

$\frac{2}{3}$ rds of the average game.

$\frac{2}{3}$ rds of the average game.

### Rules

1. Every player must write a whole number between 0 and 100 on a sheet of paper.
2. The winner of the game will be the player whose number is closest to  $\frac{2}{3}$  rds of the average of all the numbers written by all the players.




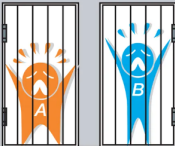


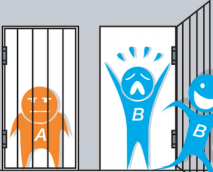
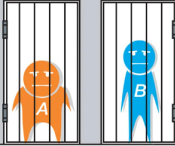
**Example:** There are 3 players who guessed the following numbers: 3, 67 and 84. The average would be  $\frac{3+67+84}{3} = 51.33$ . The closest guess to  $\frac{2}{3}$  of the average (34.22) is the player whose guess was 3.

0 → 100

$\frac{2}{3}$ rds of the average game.

# Golden Balls

# Prisoners' dilemma

		prisoner B	
		confess 	remain silent 
prisoner A	confess 	 5 years    5 years	 0 year    20 years
	remain silent 	 20 years    0 year	 1 year    1 year



## Prisoner's Dilemma

P1 \ P2	D	C
D	1, 1	5, 0
C	0, 5	3, 3

# Prisoner's Dilemma

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1. If both players cooperate, they both get 3 points.
2. If both players defect, they both get 1 point.
3. If one player defects and the other cooperates, the one that defects gets 5 points and the one that cooperates gets 0 points.

## Axelrod's Tournament - 195 strategies