

Mini Monopoly

You are required to deliver a simplified version of the game of Monopoly.

Monopoly is a famous trading game. Traditionally, the game involves buying London properties, but many versions now exist for different places both real and fictional.

In this version of the game, a number of rules are removed. There are no houses or hotels. There are no groups of properties. There are no mortgages. There are no Chance or Community Chest cards. There is no jail. Tax is simplified as is purchase and rent. Stations are reinterpreted.

Here are the rules of the simplified version of the game.

Players and the Board

The game is played by 2 to 10 players. The game is played on a board of between 10 and 50 spaces. The board is a loop – that is, when the player reaches the last space, they then restart from the first space. Here is an example of a 16-space board.

1 (Home)	2	3	4	5
16				6
15				7
14				8
13	12	11	10	9

All players start on the first square known as the “Home” space. All players start with a balance of £1000.

The other spaces are a mix of roads, properties, stations, and tax offices. Here is the same 16-space board containing roads (grey - 2,3,6,8,10,14,16), properties (orange - 4,5,9,13,15), stations (blue - 7,12) and a tax office (yellow - 11). The Home space is shown in green.

1 (Home)	2 Road	3 Road	4 Old Kent Road	5 Pall Mall
16 Road				6 Road
15 Park Lane				7 Paddington
14 Road				8 Road
13 Leicester Square	12 Waterloo	11 Tax Office	10 Road	9 The Strand

Moving

The players take it in turns to roll a pair of 6-sided dice. After rolling, they move forward by the sum of the faces of the dice. For example, a player on space 1 that rolls 4 & 4 will move to space 9. A player on space 15 of a 16-space board that rolls 4 & 5 will move to space 8.

Actions

The player will take action based on where they land.

Type of space landed on	Action
Road	Take no action
Property (not owned)	The player may choose to purchase the property. They may choose not to purchase the property and play passes to the next player.
Property (owned)	The player must pay rent to the owner of the property. If the property is owned by the current player, no action is taken.
Station	The player must pay a ticket price based on the journey undertaken (i.e. £10 x the value of the last roll) to the banker.
Tax Office	The player must pay 10% of their current balance to the banker, unless they rolled a double. If they rolled a double, then they pay a discounted rate of 5%.

Transactions

In this version of the game, the system provides a banker. Players send funds to and receive funds from the banker in order to make certain transactions.

All properties have a purchase price and a rental value. These are both fixed at the start of the game. For example, in traditional London Monopoly, Mayfair has a purchase price of £400 and a basic rental value of £50. In our version of the game, the rental value is never more than 10% of the purchase price.

If a player wishes to purchase a property, then they must give the purchase price to the banker.

If a player is obliged to pay rent, then they must give the rental value to the owner of the property.

When a player lands on or passes the Home space, they receive their wages of £200 from the banker.

Bankruptcy

If a player's cash balance falls below zero and they own no properties, then they are declared bankrupt and are out of the game. If a player's cash balance falls below zero and they own properties, then the property (or properties) with the lowest purchase price is sold back to the banker at 50% of the stated purchase price. This process continues until the player is back in credit or all properties are sold. If, after all properties are sold, the player's cash balance is still less than zero, the player is declared bankrupt and is out of the game.

End of the game

A round is considered complete when all players have rolled the dice and completed the actions. The game is played over a number of rounds or until there is only one player left in credit. The winner is the player with the highest assets. The assets are calculated as the sum of the player's cash balance and the sum of their owned property purchase values.