

Math game - The Game of Dominos



Educational Goals

- Highlight the playful potential of mathematics
- Work on the different representations of a same number

Key Features of the Targeted Competency

- To mobilize mathematical concepts and processes appropriate to the given situation (C2)
- To apply mathematical concepts and processes appropriate to the given situation (C2)
- To justify actions or statements by referring to mathematical concepts and processes (C2)

Concepts Used

- Area
- Volume
- Equivalent numbers

Materials

Appendix 1 (can be laminated for more solidity)

Targeted Academic Level



Targeted Competency



Mathematical Field Concerned



Suggested Teaching Formula



Time Required Approximately 15 minutes





Suggested Process



Step 1: Introduction

Place the students in teams of 2 or 4 players. Provide one copy of appendix 1 per team. Cut out the 42 dominos.

Step 2: The game (15 minutes)

The goal is for one of the players to manage to place all his dominos on the table. Each player starts the game with 6 dominos in his hands. The other dominos are set in the middle of the table, face down.

Take a domino that is face down and place it face up on the table. It will be the starting domino.

In order for a player to place one of his dominos on the table, one of its faces must correspond to one of the faces of the starting domino. So, the face must be one of the possible representations of the same number. For example, if the number 12 is on the starting domino, it can be joined to a face where there is: 3×4 , 10^{-1} , its divisors (1, 2, 3, 4, 6, 12), etc. He sets the domino on the table to join the two faces that go together and thus form a line. Then, it is the next player's turn.

N.B. Only the "available" faces can be used to play, that is the faces that have not been joined to another domino yet.

When a player cannot play (meaning he cannot place the dominos he has), he takes one of the dominos that are face down. If the new domino he took cannot be played, the player keeps it. It is then the next player's turn.

The game ends once one of the players manages to place all his dominos on the table.

To go further!

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To go further, play with 84 dominos.

Place more than one starting domino so the students can have more than one possibility.

This game of dominos can be played with different representations such as solids (number of vertexes, of faces, of lines, etc.), equivalent fractions, etc.

Source : Commission scolaire des Découvreurs. (2016). Mathématique au primaire. Jeux mathématiques. Repéré à <u>http://seduc.csdecou.qc.ca/prim-math/jeux-mathematiques/</u>

<u>Dominos</u>





16	(1, 2, 4, 7, 14, 28)	2 ² x 7
	18	















