

Who loves pizza?

ULBS

Scenario title/name of the game: Who loves pizza?

Children’s age (primary school students):9-10 years old

Time needed:15 minutes

Content/Subject: Numbers (identification of some fractions, the use of fractions in familiar contexts)

Aim of the activity:Solve routine and non-routine problems with fractions

# Introduction

## This game helps students to understand fractions and to represent the fractions in a familiar problem situation (transfer knowledge). Students are challenged to collect the pizza slices for each child in turn. Add then place collected slices to the plate in the center of the map. During the process, they need to check how many slices are left undistributed.

## Resources:

Programmable robot or a toy: the robot is a small and programmable robot that moves in different directions and distances.

Cards: pizza slices, a plate, different fractions

Accessories: colorized scotch to make the table on the floor or a map divided in 15 cm squares or a map made of carton

# A detailed description of the scenario

Grandma made a pizza for her grandchildren. Anne ate 2/8 of the pizza and Dan ate 3/8. How many slices were left for grandma? Find out how many slices of the total each child had eaten and how many slices are left for grandma.

# Steps

1. Students and the teacher decide together the rules of the game.
2. Students make a mental map of the road to collect the slices.
3. Then they program the robot (or put the arrows in the right order). Press start!
4. First, students need to decide how many slices did the entire pizza have, extracting data from the problem. Anne ate 2/8 of the pizza and Dan ate 3/8.
5. Students need to program the robot to collect the right number mentioned in the problem. First, they collect the slices Anne ate, namely 2/8. Then they put the 2 slices on the plate. After this they collect the slices Dan ate, namely 3/8.
6. After all slices are collected, students calculate how many slices are left for grandma.

Example of route:

Take the slice from row 1 and add it to the pizza: 6 steps forward, 2 down, 2 right.

Take the slices from row 2: first slice-1 step up and 1 step down; second slice-2 steps right, 1 step up, 3 steps left, 1 step down.

Take the slices from row 3: 3 steps left and turn 3 steps back.

Take the slices from row 4: 1 step down, 5 steps right, 5 steps back.

Take the slices from row 5: first slice - 1 step down and 1 step up; second slice - 3 steps left, 1 step down, 2 steps right, 1 step up; third slice - 1 step down, 2 steps right, 1 step up, 2 steps left.

# Tips and tricks for the teacher

Give instructions at the beginning of the game!

Encourage children to speak out loud when they think!

Let children make mistakes. Trying again and discovering the error is part of the game!

Add the more person and more fractions, to make the game more difficult.

Play the game in teams to add competition, if you aim to increase the speed of solving the tasks!

# scenario implementation and other resources

* Maps, arrows, other materials especially created for this scenario.
* Didactic materials: cards with pizza slices, an image with a whole pizza and the slices represented on it.

# Variants of the scenario/the game

The same game can be played in teams to add in competition if another aim is to speed up solving the tasks. More characters can be added, more pizza and more fractions.