



Funded by
the European Union

ERASMUS+ PROJECT: "Development of selected key competences of pupils in lessons and extracurricular activities at school" No. 2024-1-PL01-KA220-SCH-000247484/2

Lesson plan

Basic information:

Lesson: Mathematics

Class: VII.B

Time allocation: 45 minutes

Teachers: Mgr. Petra Majerníková, Mgr. Petra Moldová

School name: Smolenice Primary School and Nursery School

Topic: Adding and subtracting fractions with different denominators

Lesson: Mathematics; Class: VII; Topic: Adding and subtracting fractions with different denominators

Educational objectives:

Lesson objectives: to explain and practise adding and subtracting fractions with different denominators by converting them to a common denominator

Content standard: Addition and subtraction with different denominators (converting to a common denominator – does not have to be the lowest common denominator)

Performance standard: know how to reduce a fraction (even to its basic form) and expand a fraction, know how to find a common denominator and add and subtract fractions with different denominators

SMART goals for pupils:

We will learn to add and subtract fractions with different denominators

Each pupil will achieve at least 50% success in getting the correct result.

We will use fraction models to practise operations with fractions

Key competences:

Competencies	How they are fulfilled in class
Communicating and working with information	Pupils identify a mathematical problem, search for and find a solution
Mathematical, scientific and technological	Application of mathematical operations
Digital	Working with an interactive whiteboard
Personal and social	Working in pairs, peer learning
Learning competence	posing mathematical problems, developing deduction and the ability to seek solutions

Didactic procedures:

Methods: discussion, demonstration, presentation of visual material, exercises

Forms: Individual, group and frontal work

Teaching aids: interactive whiteboard, blackboard, workbook, fraction set, presentation

Differentiated tasks: the assistant chooses the pace of work for pupils with SEN, shortens tasks

Lesson plan:**6. Introduction****BINGO BONGO game**

Pupils choose 9 numbers in a 3x3 table. The teacher gives examples from multiplication and division tables. If the result of the example is in the pupil's table, they tick the corresponding box in the table. When a row, column or diagonal in the table is marked, they say BINGO aloud. The first person to mark the entire table says BINGO BONGO and becomes the winner.

Numbers that students put in the table: (they are always arranged in ascending order so that the student does not feel that the first numbers will be in the table)

0, 6, 8, 9, 11, 15, 18, 25, 28, 30, 36, 42, 45, 56, 60, 81

Examples:

$5 \times 3 = 45$	$7 \times 8 = 56$
$88 : 8 = 11$	$4 \cdot 9 = 36$
$9 \times 9 = 81$	$120 : 4 = 30$
$12 \cdot 5 = 60$	$6 \times 7 = 42$
$72 : 9 = 8$	$152 \cdot 0 = 0$
$7 \cdot 4 = 28$	$75 : 5 = 15$
$1 \cdot 18 = 18$	$54 : 6 = 9$
$5 \cdot 5 = 25$	$180 : 30 = 6$

PowerPoint presentation (see attachment) – introducing the topic using previous lessons (adding and subtracting fractions with the same denominator) – how did we add and subtract such fractions? What if we do not have the same denominator? Can we add such fractions? What are the denominators of these fractions? (3,4 slide presentation) – models of fractions. Follow up on the lowest common multiple, reducing and expanding fractions, explained using a specific example in the exposition.

7. Exhibition: Explanation using a specific example

$$\frac{3_{.3}}{4_{.3}} + \frac{4_{.2}}{6_{.2}} = \frac{9}{12} + \frac{8}{12} = \frac{17}{12}$$

$$\frac{1_{.3}}{2_{.3}} + \frac{4}{6} = \frac{3}{6} + \frac{4}{6} = \frac{7}{6}$$

$$\frac{3_{.3}}{4_{.3}} - \frac{4_{.2}}{6_{.2}} = \frac{9}{12} - \frac{8}{12} = \frac{1}{12}$$

8. Fixation – exercises from PZ – working in pairs and on the board

PZ 1 p. 19/7

Website: eductify

[Mathematics Tests – Fractions](#)

9. Reflection and conclusion: What have we learned?

Bonus task:

Calculate and simplify to the basic form

$$\frac{5}{4} - \left(\frac{3}{6} + \frac{1}{3} \right) = ?$$

$$\frac{5}{4} - \left(\frac{9}{18} + \frac{6}{18} \right) = \frac{5}{4} - \frac{15}{18} = \frac{45}{36} - \frac{30}{36} = \frac{15}{36} = \frac{5}{12}$$

10. Self-assessment and evaluation – How well do I understand the material?



Methodological evaluation

The lesson effectively builds on previous lessons, which will facilitate understanding of adding and subtracting fractions with different denominators. It uses visualisation to support understanding of abstract mathematical operations.

Activating methods (BINGO BONGO game, working in pairs) maintain pupils' attention and engagement throughout the lesson. The use of peer learning is also methodologically valuable, as it develops social skills (helping those who are weaker) and learning skills (I'll teach you...).

The lesson is designed to entertain pupils, using children's playfulness and the need to alternate activities. For more competitive types of pupils, it induces a feeling of motivation and sustained attention.

In terms of skills development, pupils work with information, deduce and seek solutions, and their sense of inquiry is encouraged. Effectively, mathematical precision is linked to the development of relationships and social skills.

Conclusion: The lesson is methodologically well prepared, and pupils actively participate in the learning process. The teacher makes targeted use of didactic games, visualisation and cooperative learning, thereby supporting the development of key competences.

Methodological evaluation prepared by: PhDr. Ivana Štibraná, PhD.

APPROVED

Mgr. Magdaléna Eliášová, school principal

10 October 2025, Smolenice, Slovak Republic