

## MATHEMATIC FOR ACADEMIC STUDIES

### 1. LEARNING OUTCOMES

- Identify first degree and other inequalities
- Solve inequalities
- Solve systems of inequalities

### 2. SUBJECT CONTENTS

- First-degree inequality
- Second-degree inequality
- Algebraic inequality
- Set of solutions
- Intervals and half-lines

### 3. LANGUAGE CONTENT

- Vocabulary

Nouns: inequality, set of solutions, close interval, half-open interval, half-lines, parentheses, bracket, endpoint, unknown

Verbs: skip, move to one side or to the other side, change direction

- Structures:

Comparatives: greater than, equal than, less than

### 4. COGNITIVE PROCESSES

Understand, analyse, solve

### 5. TASKS

#### 1. Matching cards

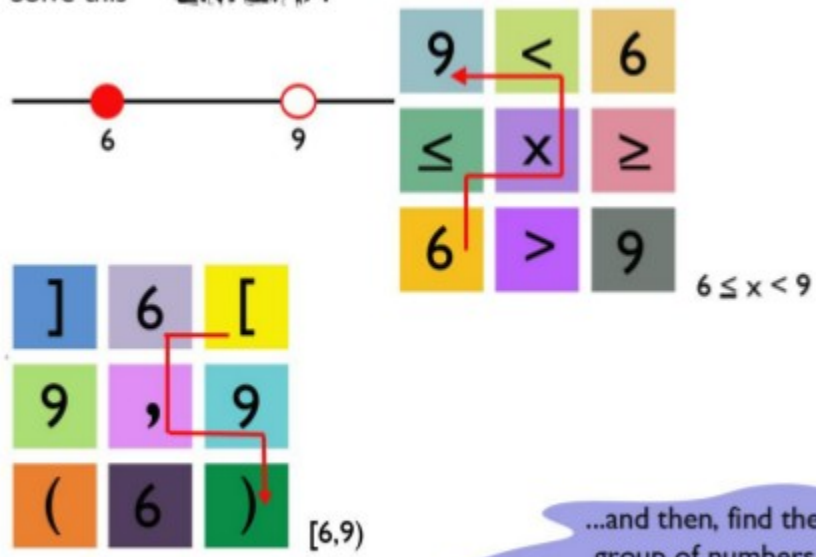
We are going to play in groups of three or four people. They have to match the pairs of cards as fast as possible. The group that finishes first wins.

INEQUALITY	A MATHEMATICAL STATEMENT WITH $\leq, \geq, <, >$ BETWEEN TWO EXPRESSIONS
LESS THAN $\leq$	SMALLER IN SIZE, QUANTITY OR AMOUNT
GREATER THAN $\geq$	MORE THAN IN SIZE, QUANTITY OR AMOUNT
EQUAL $=$	TWO EXPRESSIONS ARE THE SAME
NOT EQUAL $\neq$	TWO EXPRESSIONS ARE DIFFERENT
LIKE TERMS	TERMS WITH IDENTICAL VARIABLE PARTS
SOLUTION OF AN INEQUALITY	THE SET OF ALL NUMBERS THAT PRODUCE TRUE STATEMENTS WHEN YOU SUBSTITUTE THE VARIABLE IN THE INEQUALITY

EQUIVALENTS	HAVING THE SAME VALUE
INTERVAL	SET OF ALL THE VALUES BETWEEN TWO GIVEN ENDPOINTS
INTERSECTION OF TWO INTERVALS $\cap$	THE SET OF ALL THE VALUES WHICH ARE IN BOTH INTERVALS

## 2. Enigma

Solve this "ENIGMA"



...and then, find the group of numbers.

