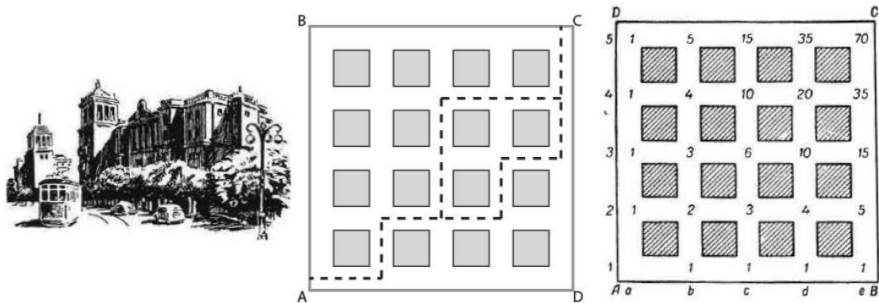


# Puzzle time - on searching

## How many routes?

In our Mathematics Circle we diagrammed 16 blocks of our city. How many different routes can we draw from the bottom-left corner to the top-right corner moving only upward and to the right? Different routes may, of course, have portions that coincide (adapted from Kordemsky - Moscow puzzles)



$$m_1 + m_2 + m_3 + m_4 + m_5 + m_6 + m_7 + m_8 = 4, m_i \in \{0, 1\}$$