



LOGIFACES
METHODOLOGY

Erasmus+

STUDENT
Logifaces

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622 - Addition Rule of Probability



MATHS / PROBABILITY

Name:

Date:

Tools: one 9 pcs Set / pair

DESCRIPTION

LEVEL 1 Students discuss the following observation: fixing for example the block 223 and choosing one other block from the 16 pcs Set at random, the following occurs:

Probability that the chosen block can be fit to	
a) the top face	$\frac{7}{15}$
b) any vertical face	$\frac{9}{15}$
c) any face	$\frac{11}{15}$

The sum of the probabilities in parts a) and b) is $\frac{16}{15}$, which is more than the probability in part c). What is the explanation of this phenomenon?

LEVEL 2 Students discuss the following observation: fixing for example the block 223 and choosing one other block from the 16 pcs Set at random, the following occurs:

Probability that the chosen block can be fit to	
a) the top face	$\frac{7}{15}$
b) the vertical face 22	$\frac{2}{15}$
c) the vertical face 23	$\frac{6}{15}$
d) the vertical face 32	$\frac{6}{15}$
e) neither of the faces	$\frac{4}{15}$

The sum of the probabilities is $\frac{25}{15}$, because the sum of the numbers of favourable outcomes is 25, which is more than the number of blocks in the Set. What is the explanation of this phenomenon?

SOLUTION(S)