

# Clicker 1 on 21 February

21.02.2024 10:15 - 12:00

## G - Algebraic Topology II

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Which of the following statements is true for all abelian groups  $M$  and  $N$ ?

- $M \otimes_{\mathbb{Z}} \mathbb{Z}^2 \cong M \oplus M$ .

Run 1 91% | 10 Number of votes

- Every element of  $M \otimes_{\mathbb{Z}} N$  can be written as  $\sum_{i=1}^n x_i \otimes y_i$  with  $x_i \in M, y_i \in N$  in a unique way (up to permutation of summands).

Run 1 36% | 4 Number of votes

- If  $x \in M$  and  $y \in N$  are both non-zero, then  $x \otimes y \in M \otimes_{\mathbb{Z}} N$  is non-zero as well.

Run 1 45% | 5 Number of votes

- Category theory offers an elegant language for mathematical structures.

Run 1 64% | 7 Number of votes