CAT THEORY - A1

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Problem 1. How many non-isomorphic categories are there with at most 4 non-identity arrow.

Sketch. If we have one object, A, we have a few different cases to consider. There's only one trivial case with no non-identity arrows.

   (a) For one non-identity morphism, $f : A \to A$ we must have that f is nilpotent or

$\square$

Problem 2.