

Reading Questions 2

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1. If f is a mapping from \mathbb{Z} to \mathbb{Z} and f maps all element in \mathbb{Z} to 1 then f is an identity map.
2. Let f be a map. If f is $1 - 1$ and onto then f is a bijection.
3. If $f(3) = 4$ and $g(4) = 3$ then where does gf map 3?

Section 1.2 One to One and Onto Functions (Part 1)

Permutations

- P 1.** How many elements of $\text{Perm}([1, 2, 3, 4])$ map at least one element to itself?
- P 2.** Compute $|\text{Perm}([1, 2, 3, \dots, n])|$.

Cyclic Notation

- P 3.** Using cyclic notation write the elements of S_4 .
- P 4.** Write the elements of S_4 that contain a 2-cycle.