
Getting used to Mathematical Thinking Exercisesst

INSTRUCTIONS: Answer the questions in this page by hand. Take a picture of it and upload it to Blackboard.

1. Using only empty sets (i.e. the only symbols you can use are left and right curly brackets) write a set with 3 elements in it.
2. Explain why \mathbb{Z} is not a group with respect to multiplication.
3. Create the multiplication table for \mathbb{Z}_4 .
4. Explain why in \mathbb{Z}_n , $(n-1)_n + 1_n = 0_n$
5. Prove that In \mathbb{Z}_5 , $4_5 + x = 3_5$ has only one solution.
6. Explain the difference between a variable and a constant.

