

Reminder

The second exam takes place on April 11 (next Wednesday).

The material for the exam is mainly Chapter 5 and Sections 6.1 and 6.2.

Review exercise

- (i) Suppose $f(x) = x^2$. If the domain and the codomain of f are spaces in list (A), is f a continuous map? (25 subcases)
 - (ii) Same question for list (B).
 - (iii) Same question for domain from (A) and codomain from (B).
 - (iv) In (i), replace “continuous map” with “open map.”
 - (v) In (ii), replace “continuous map” with “open map.”
 - (vi) In (iii), replace “continuous map” with “open map.”
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|-----|---|-----|---|
| (A) | 1. $(\mathbb{N}, \text{discrete})$ | (B) | 1. $(\mathbb{R}, \text{discrete})$ |
| | 2. $(\mathbb{N}, \text{indiscrete})$ | | 2. $(\mathbb{R}, \text{indiscrete})$ |
| | 3. $(\mathbb{N}, \text{initial segment})$ | | 3. $(\mathbb{R}, \text{Euclidean})$ |
| | 4. $(\mathbb{N}, \text{final segment})$ | | 4. $(\mathbb{R}, \text{Sorgenfrey})$ |
| | 5. $(\mathbb{N}, \text{finite-closed})$ | | 5. $(\mathbb{R}, \text{finite-closed})$ |

Assignment due next class

Study for the upcoming exam.