

1. Proof of the Eulerian criterium
2. A binary relation R between sets A and B is a set $R \subseteq A \times B$
3. A binary relation R on a set A is a set $R \subseteq A \times A$
4. Representation via set of pairs, binary matrix, bipartite graph
5. Composition of binary relations
6. Operations with binary relations
 - Set operations
 - Transposition \top . R^\top is known as converse, inverse, transpose relation.
7. Reflexivity, symmetry and transitivity
8. Equivalence relations

References

The books are listed on the wiki-page.

[2]: Section 1.4 (I also recommend to study Section 1.5)

[4]: Chapter 7

[7]: Chapter 9