

Assignment 10, Discrete Math
Covers section 7.7

1. 7.7 #2 (you don't need to simplify)
2. 7.7 #5
3. 7.7 #9
4. 7.7 #10
5. 7.7 #20
6. 7.7 #21
7. Let $A = \{1, 2, 3, 4, 5\}$. Certainly, there is exactly one partition of A which consists of exactly one part, and there is exactly one partition of A which consists of exactly five parts. Find the number of partitions of A which consist of exactly two parts, the number of partitions of A which consist of exactly three parts, and the number of partitions of A which consist of exactly four parts. Then use this result, along with the theory of equivalence relations and Theorem 2.4.6 (and its discussion afterwards), to count the total number of equivalence relations on A .