Discrete math UTS midterm exam 2023, prepared by Michael Marchenko

1. How many subsets are there in a set of T elements?

2. Order the logical operations OR, AND, NOT.

3. Is this function (0, 0), (1, 1), (4, 2), (9, 3), (4, -2)? Why?

4. Compare truth tables of implication, conversion, inversion, contraposition.

5. Calculate number of permutations P(T,L).

6. In how many ways you can write the digits of your k?

7. Find Highest Common Divisor and Lowest Common Multiple of e+4 and L+4.

8. Convert T to e+2 and L+2 counting systems. Give prime factorization of s.

9. Calculate the largest prime number you can.

10. Give the histogram of tossing L+2 fair coins, the first e+3 digits of π.

11. Give the histogram of adding random between e+2 times.

12. Solve the Graceful Graph Problem for *(e+3)* vertices.