**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**“JnanaSangama”, Belgaum -590014, Karnataka.**

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**LAB REPORT**

**On**

**ARTIFICIAL INTELLIGENCE**

**Submitted by**

**IMRAN WADRALI (1BM21CS077)**

**in partial fulfillment for the award of the degree of**

**BACHELOR OF ENGINEERING**

**in**

**COMPUTER SCIENCE AND ENGINEERING**



**B.M.S. COLLEGE OF ENGINEERING**

**(Autonomous Institution under VTU)**

**BENGALURU-560019**

**Oct 2023-Feb 2024**

**B. M. S. College of Engineering,**

**Bull Temple Road, Bangalore 560019**

**(Affiliated To Visvesvaraya Technological University, Belgaum)**

**Department of Computer Science and Engineering**

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CERTIFICATE

This is to certify that the Lab work entitled **“ARTIFICIAL INTELLIGENCE”** carried out by **IMRAN WADRALI (1BM21CS077)**, who is bonafide student of **B. M. S. College of Engineering**. It is in partial fulfillment for the award of **Bachelor of Engineering in Computer Science and Engineering** of the Visvesvaraya Technological University, Belgaum during the year 2022-23. The Lab report has been approved as it satisfies the academic requirements in respect of Artificial Intelligence Lab - **(22CS5PCAIN )**work prescribed for the said degree.

**Swathi Sridharan** **Dr. Jyothi S Nayak**

Assistant Professor Professor and Head

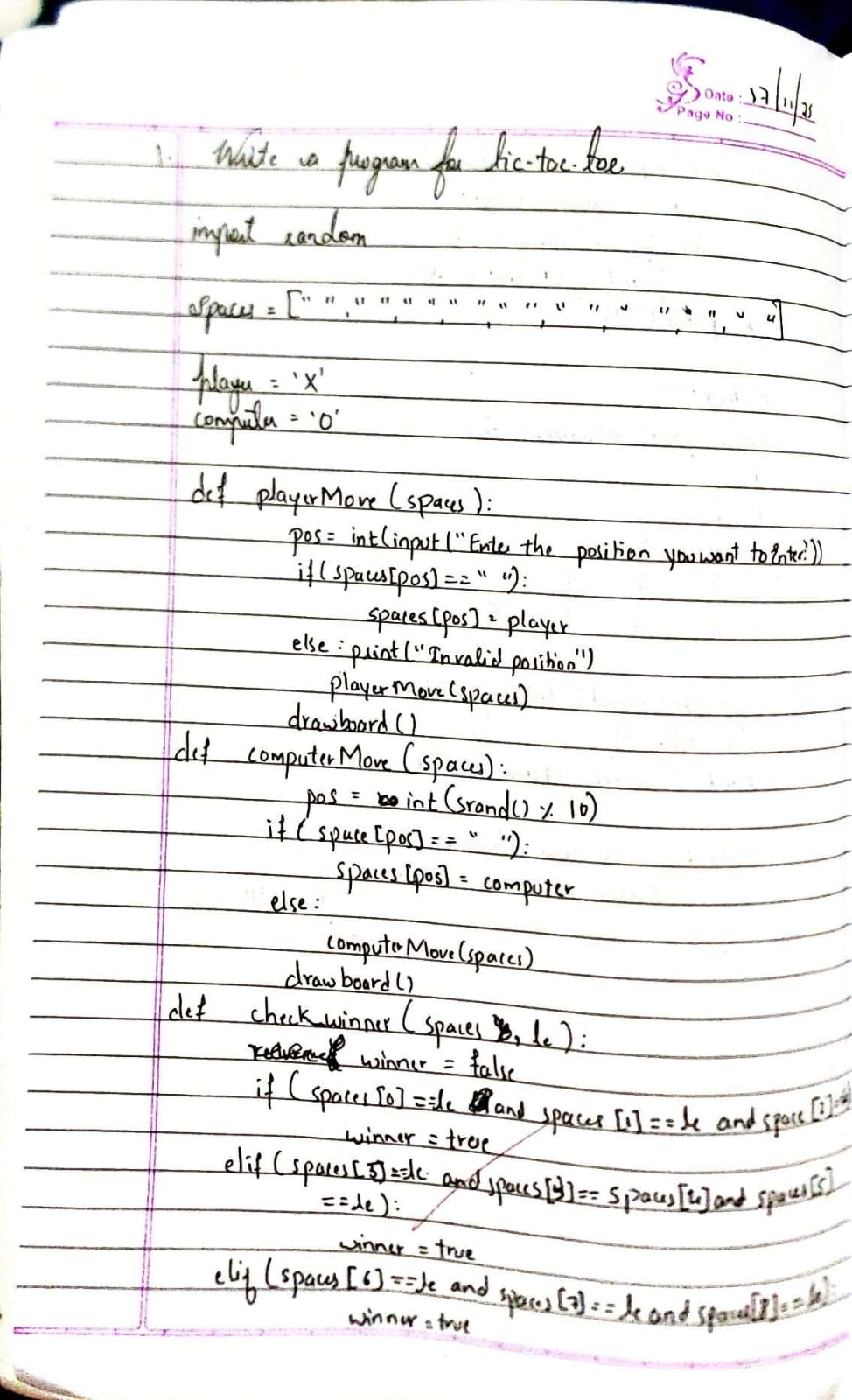
Department of CSE Department of CSE

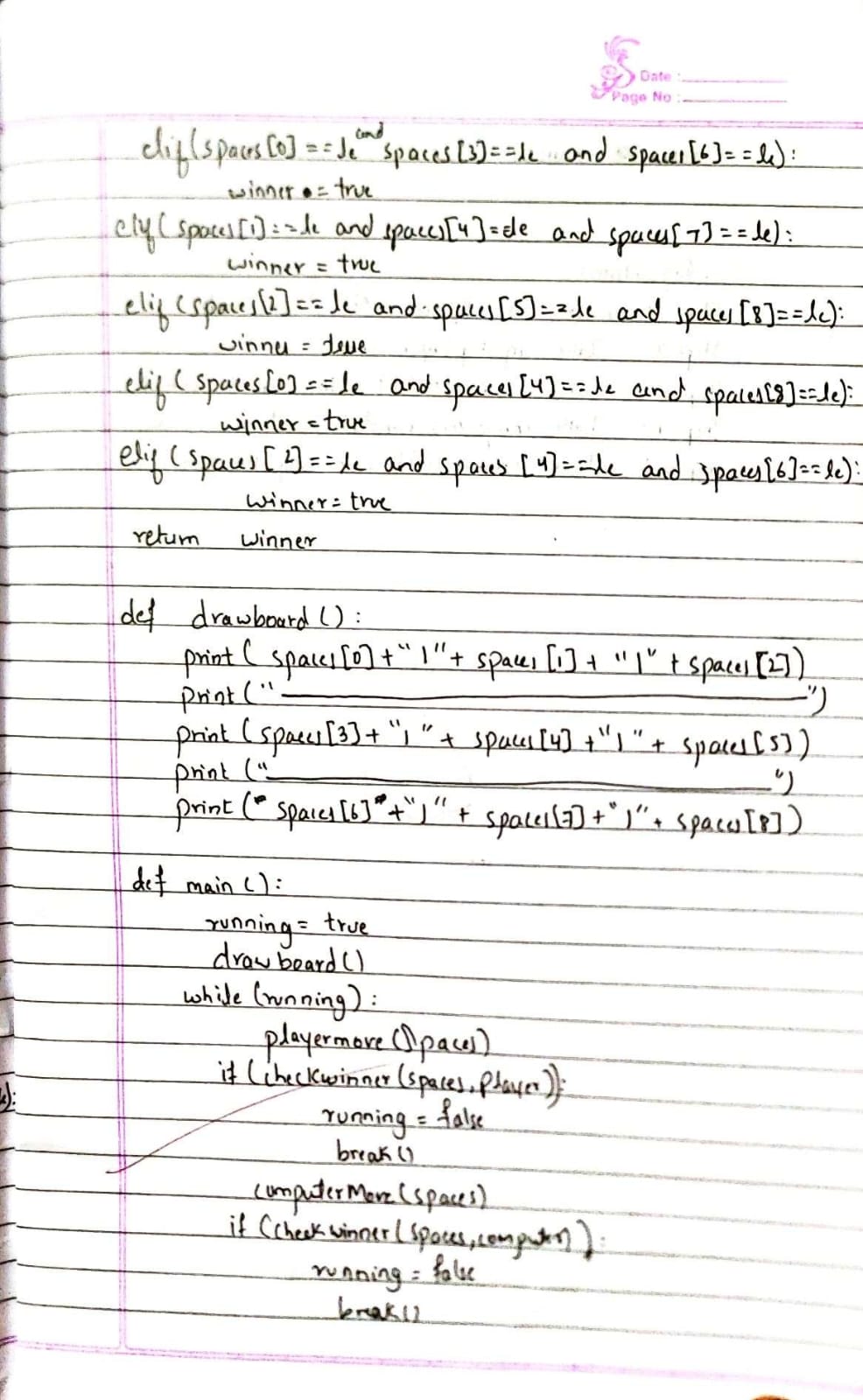
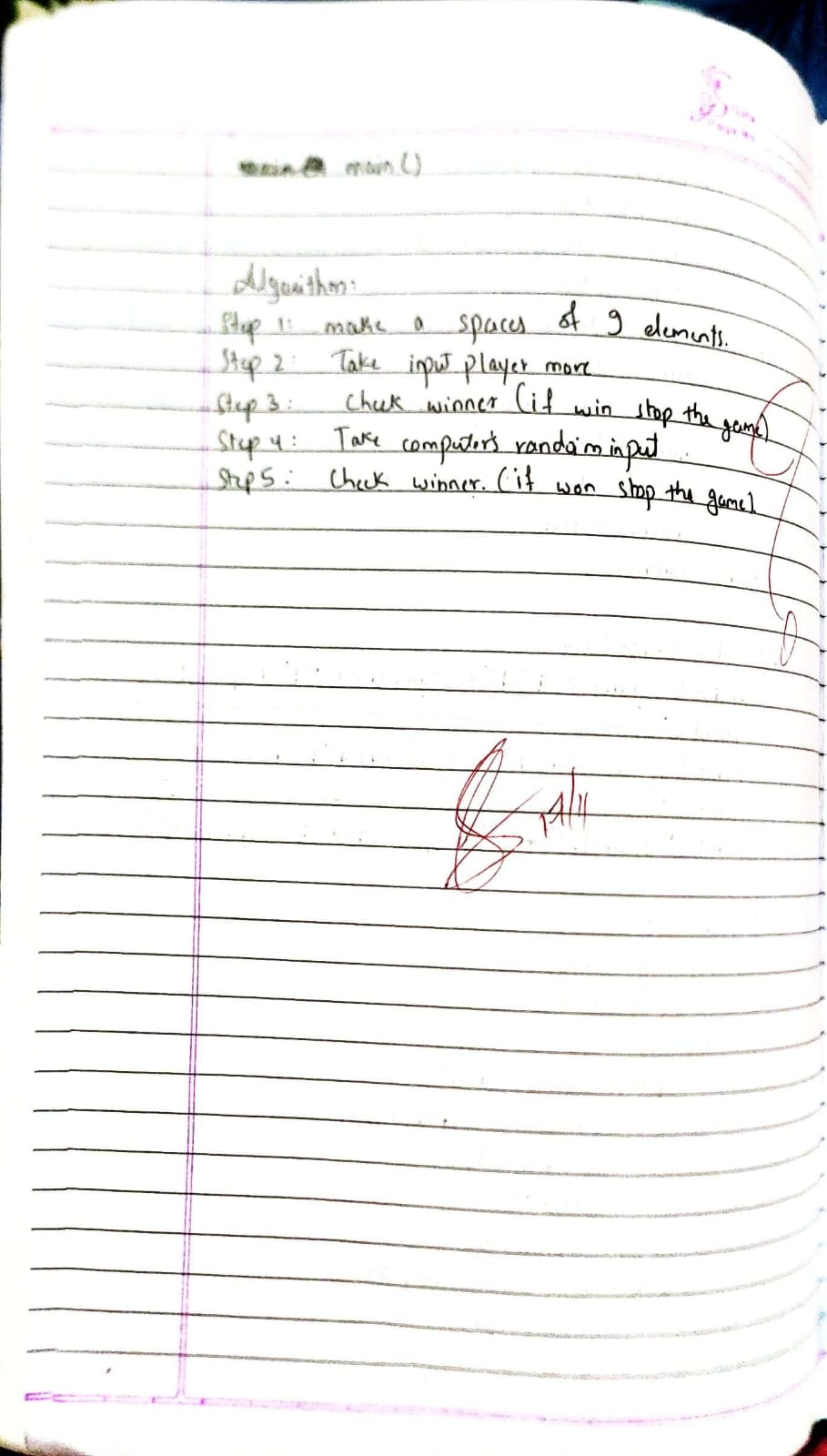
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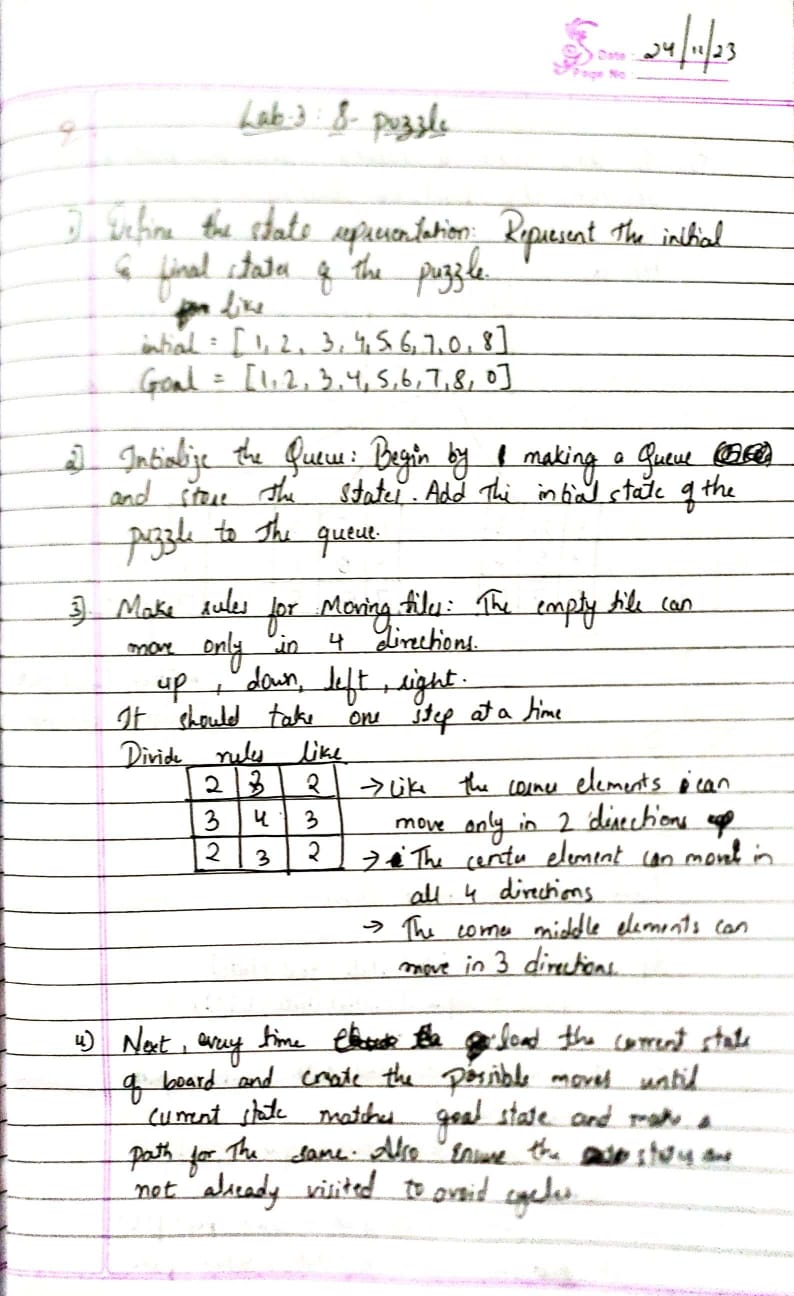
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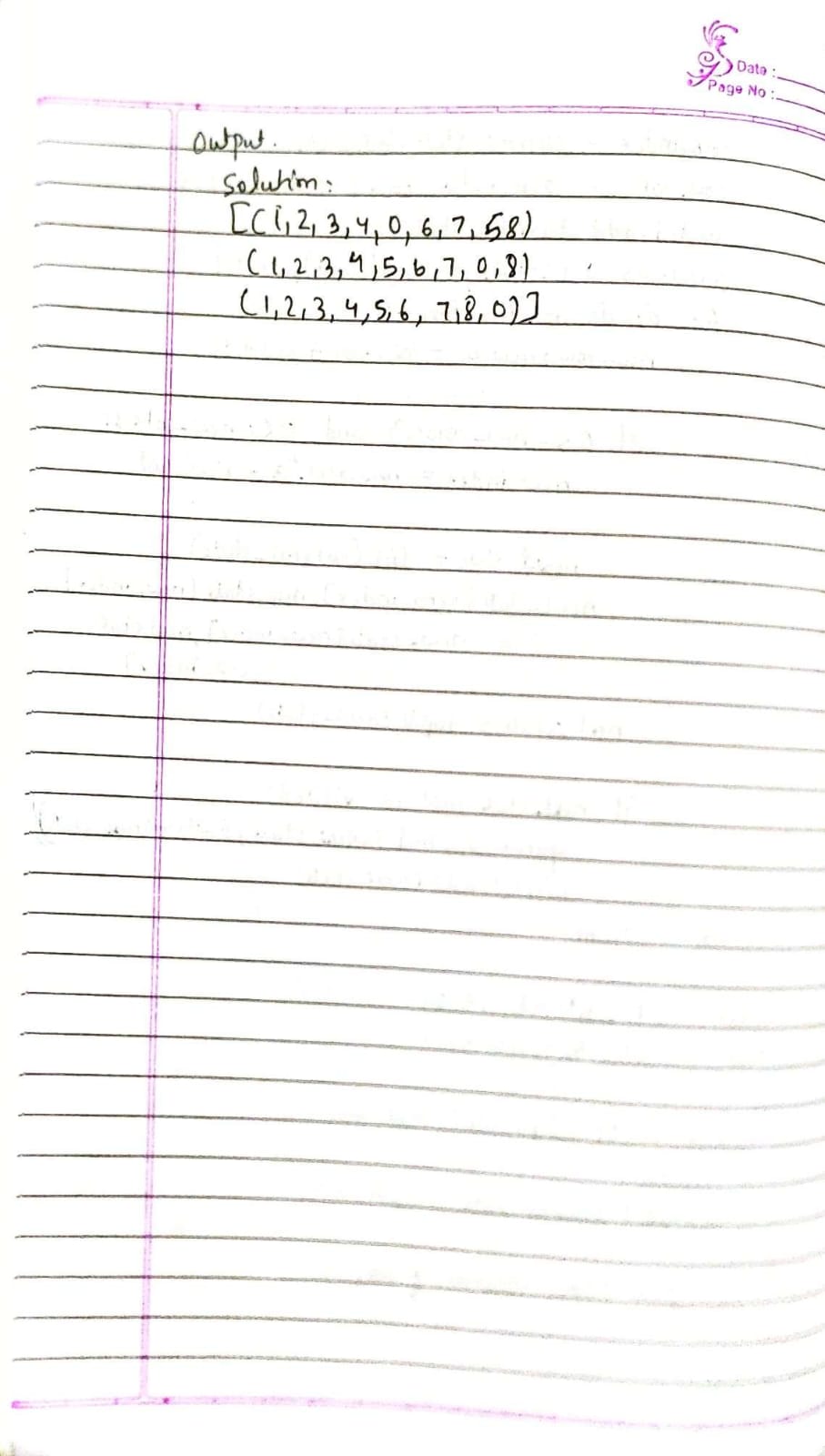
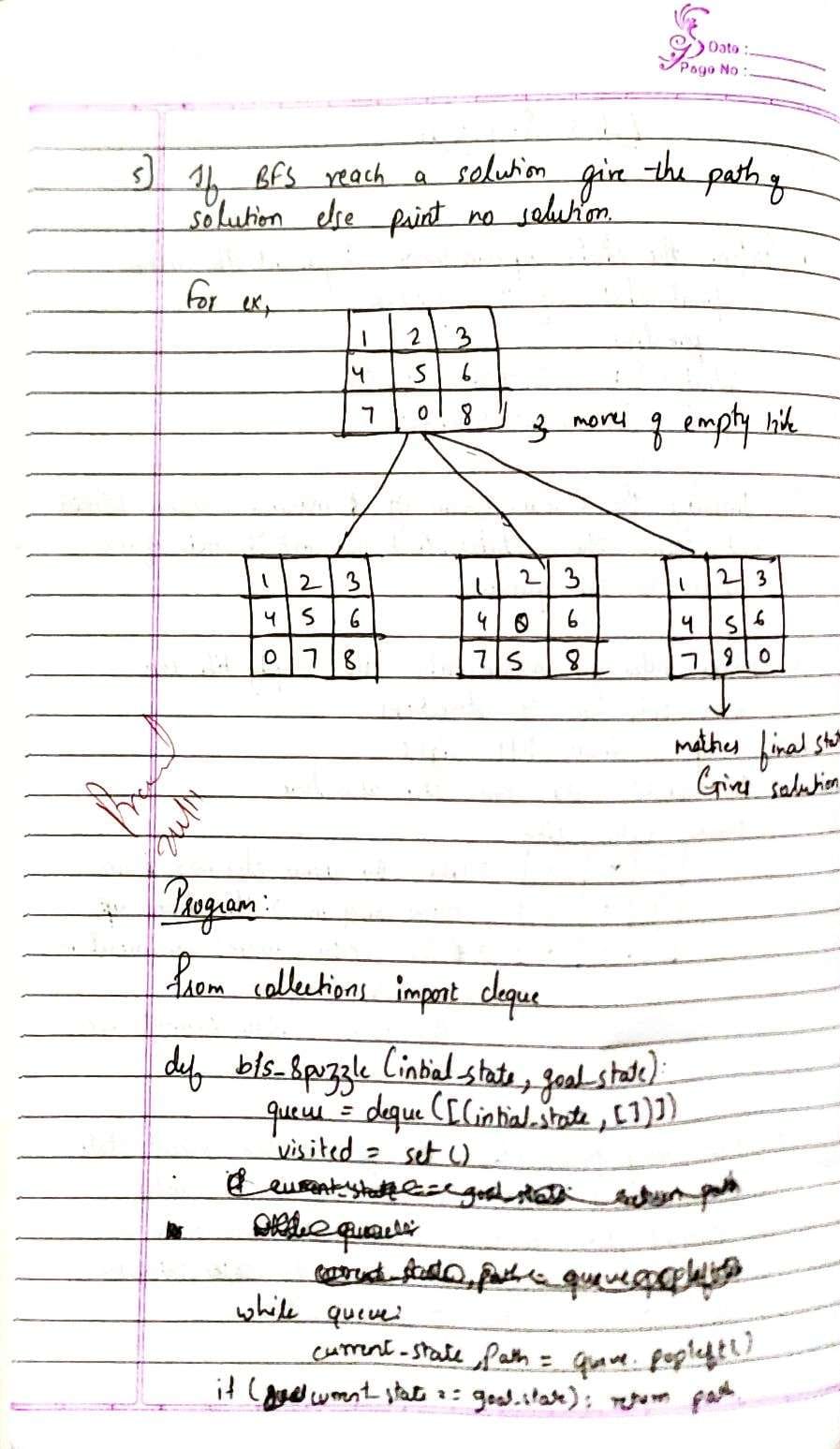
**1.Implement Tic –Tac –Toe Game.**

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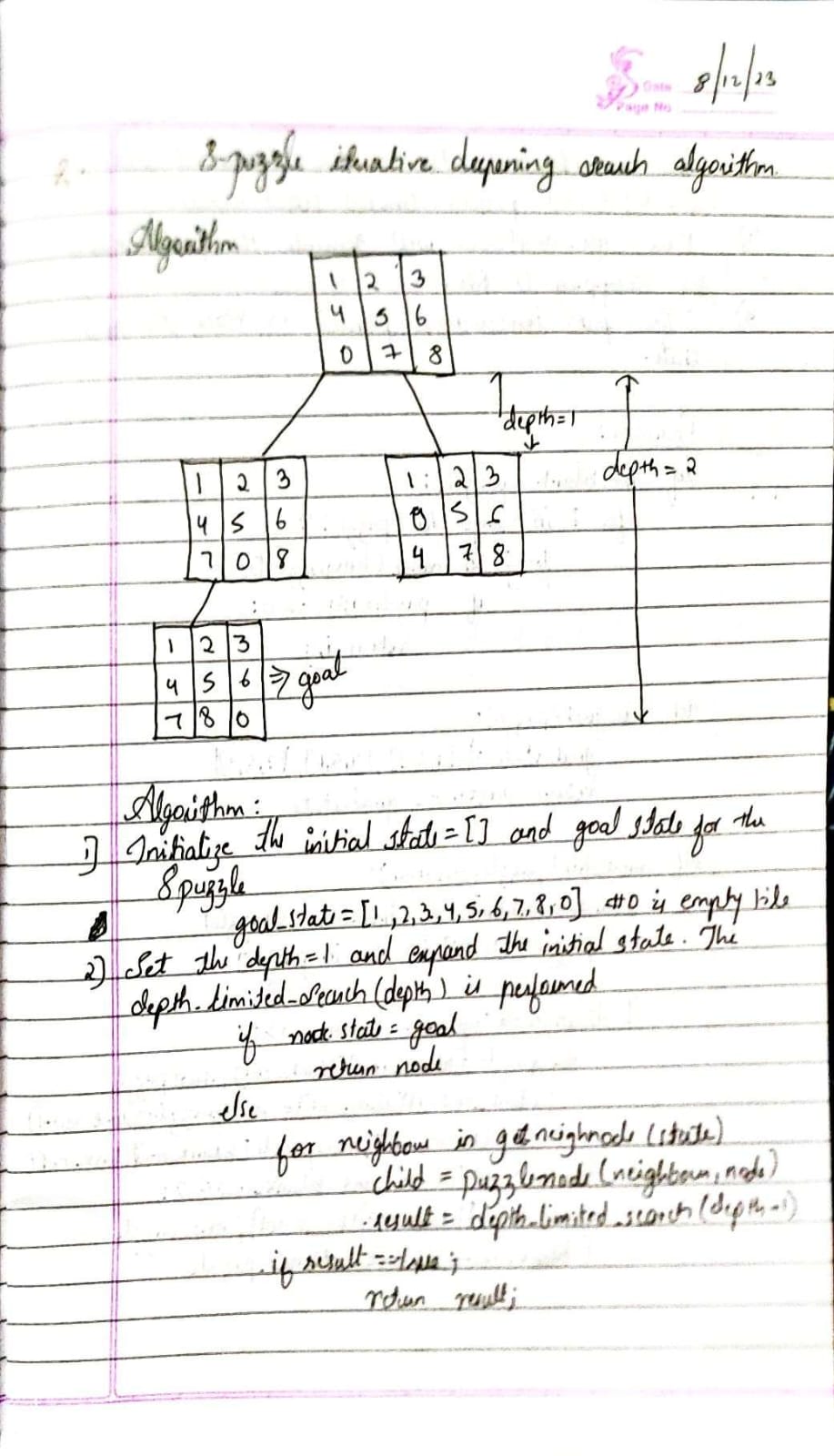


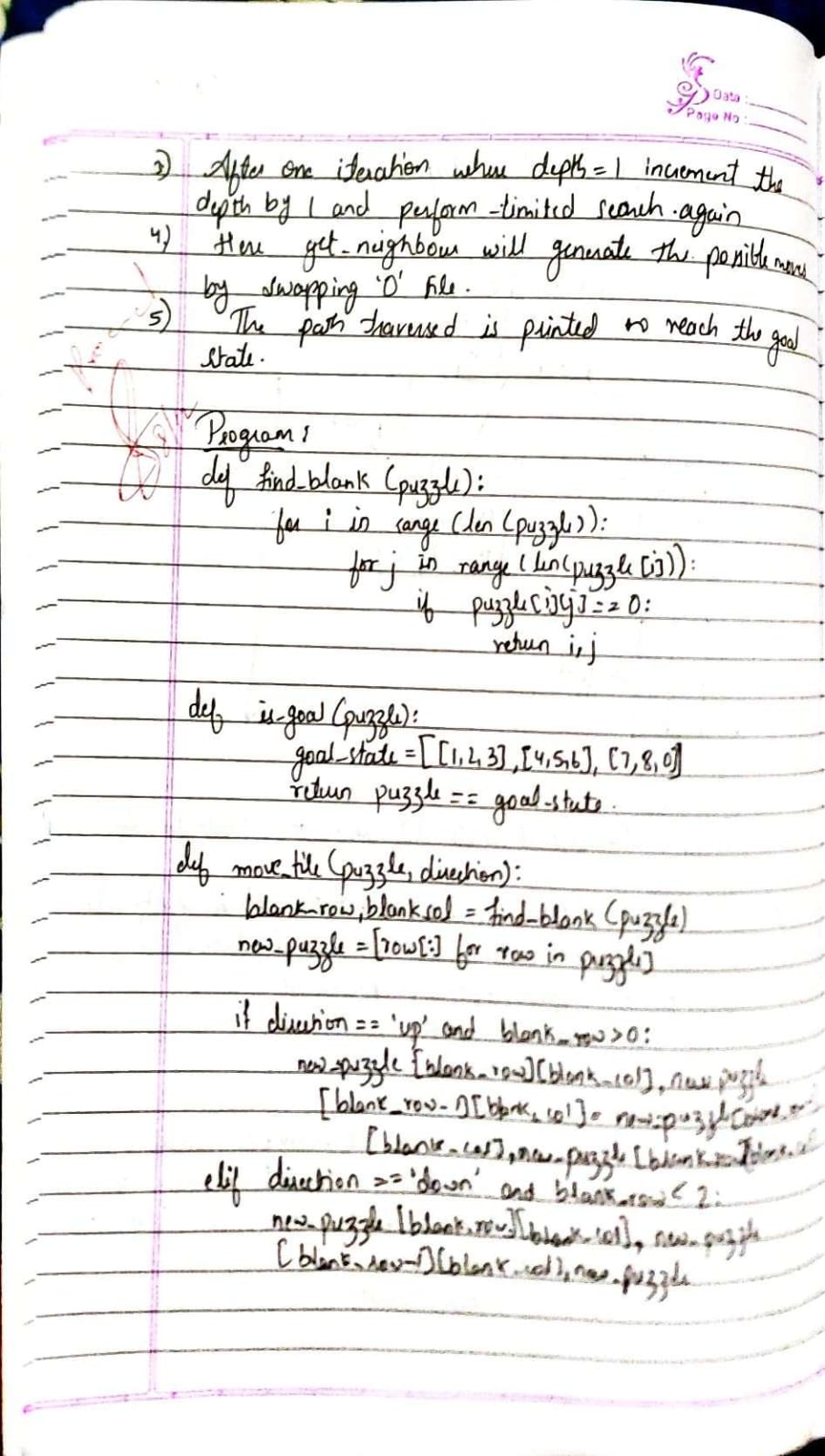
**2 .Solve 8 puzzle problems.**



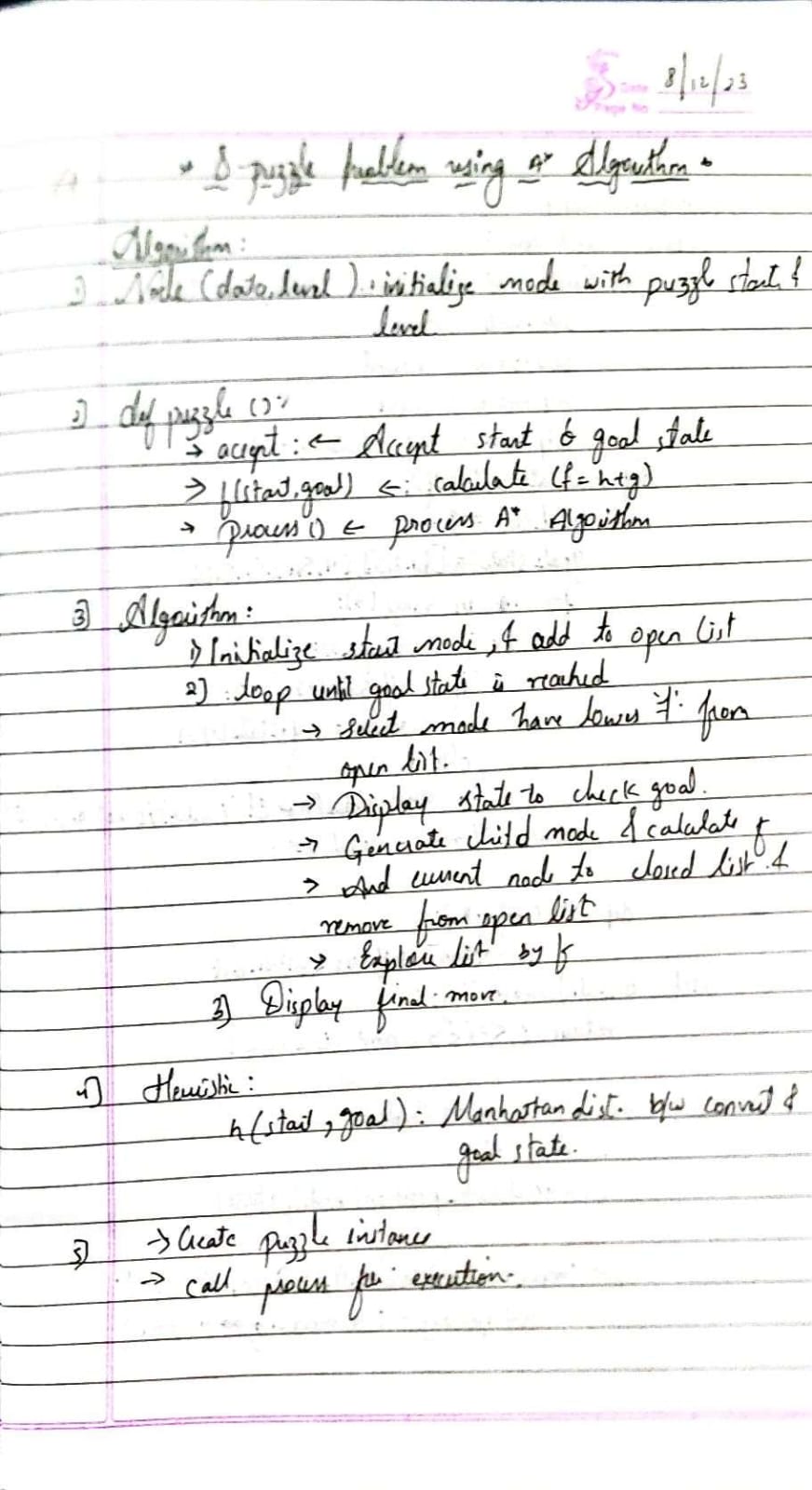


**3. Implement Iterative deepening search algorithm.**

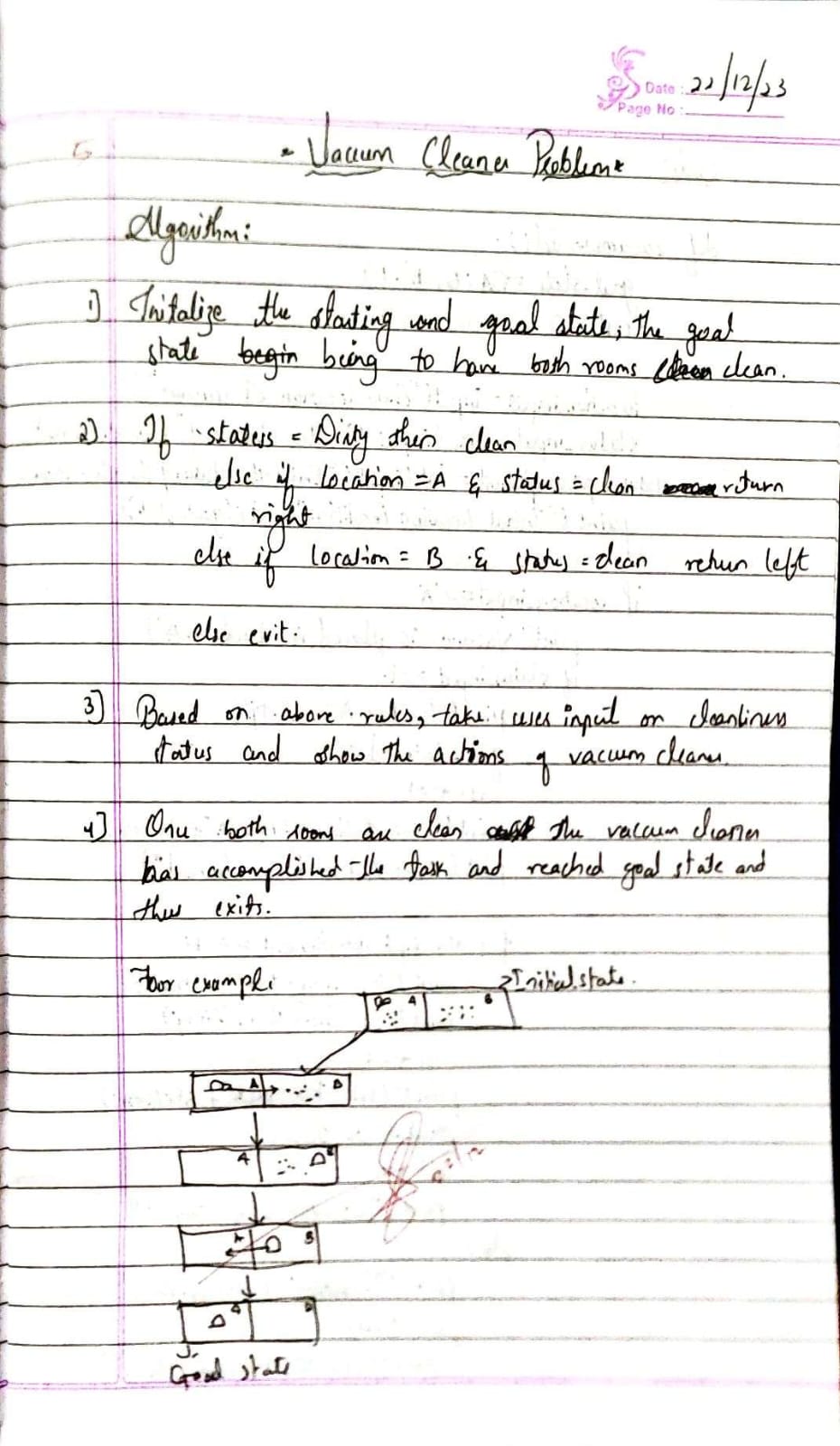
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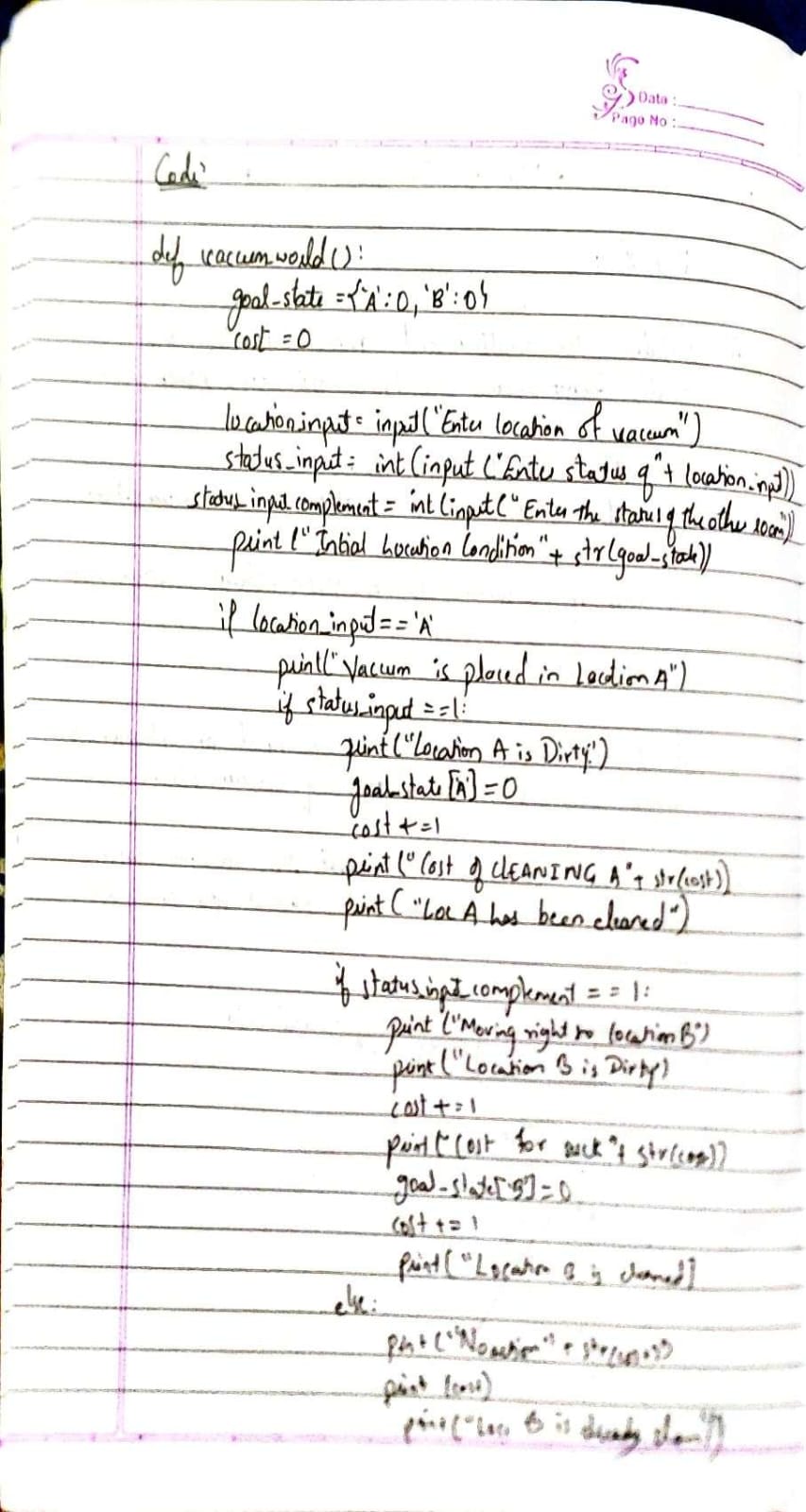


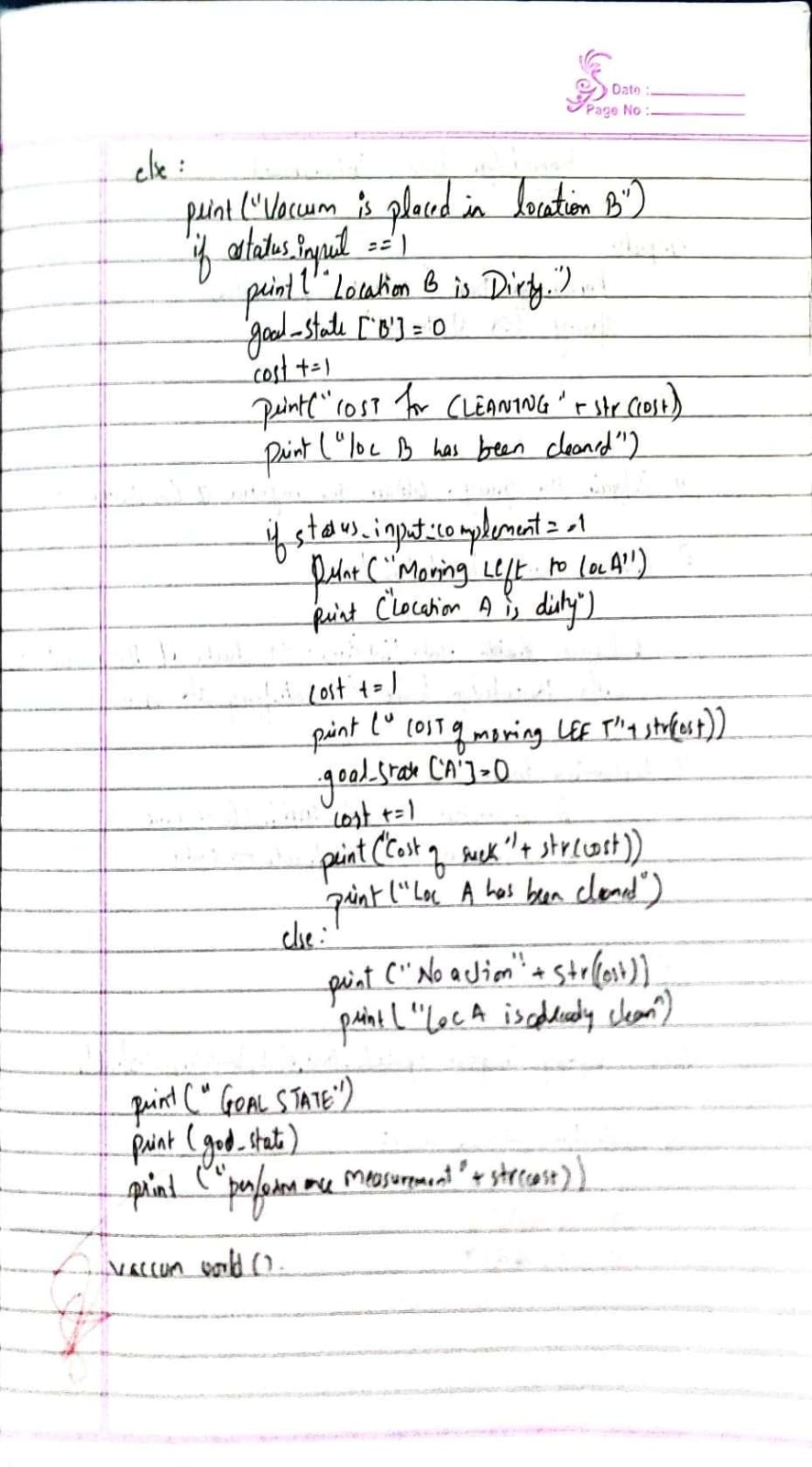
**4. Implement A\* search algorithm.**



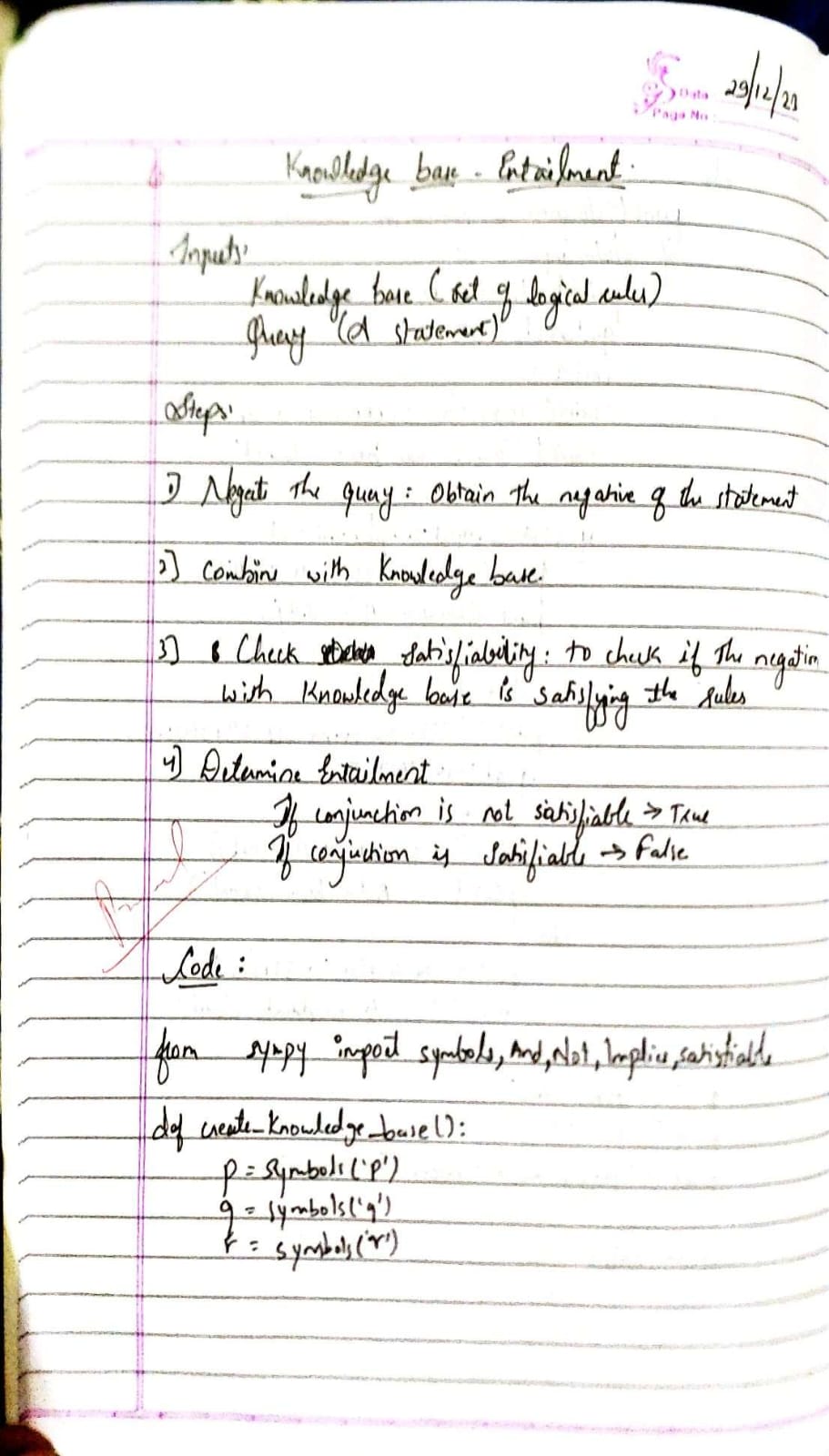
**5. Implement vaccum cleaner agent.**

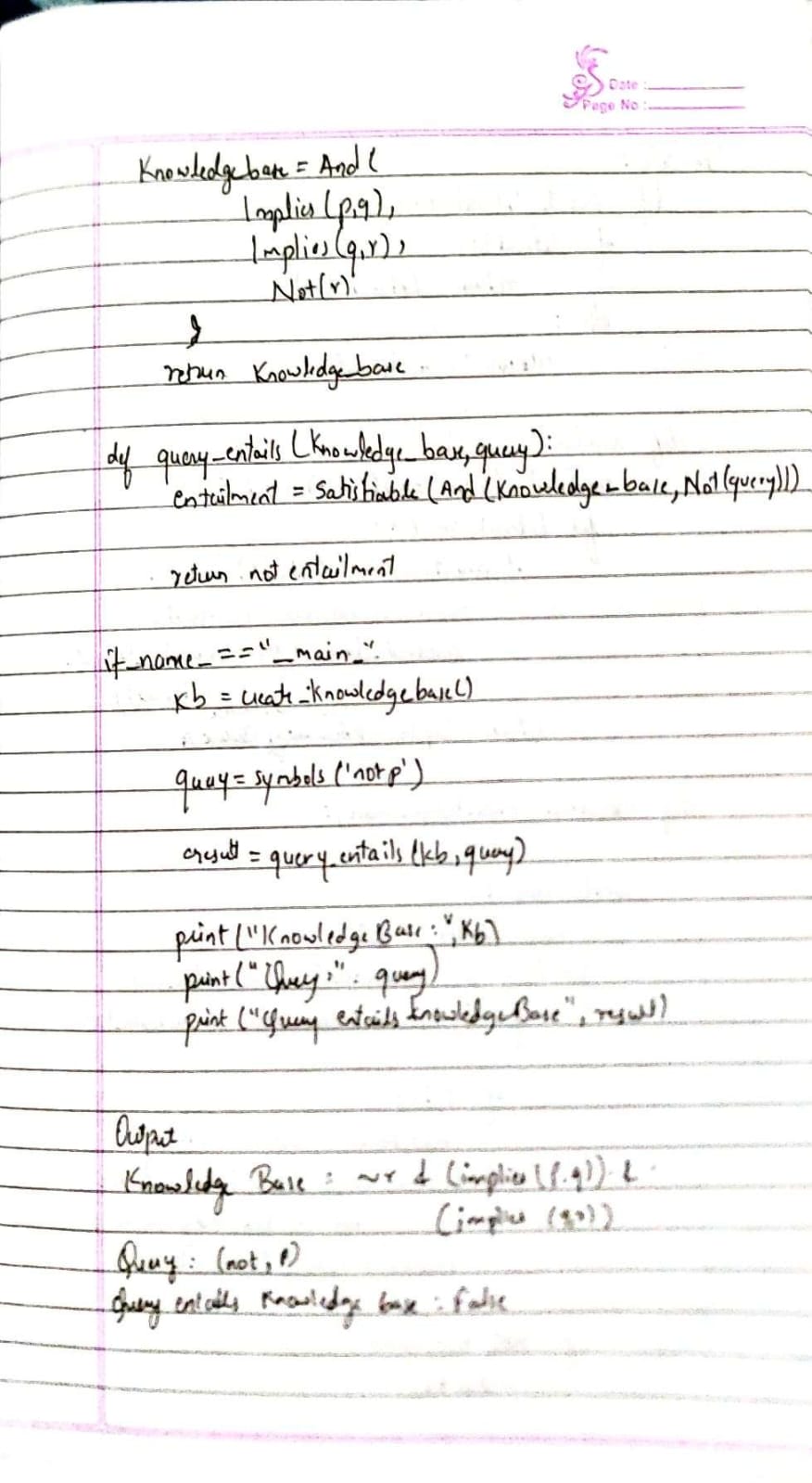




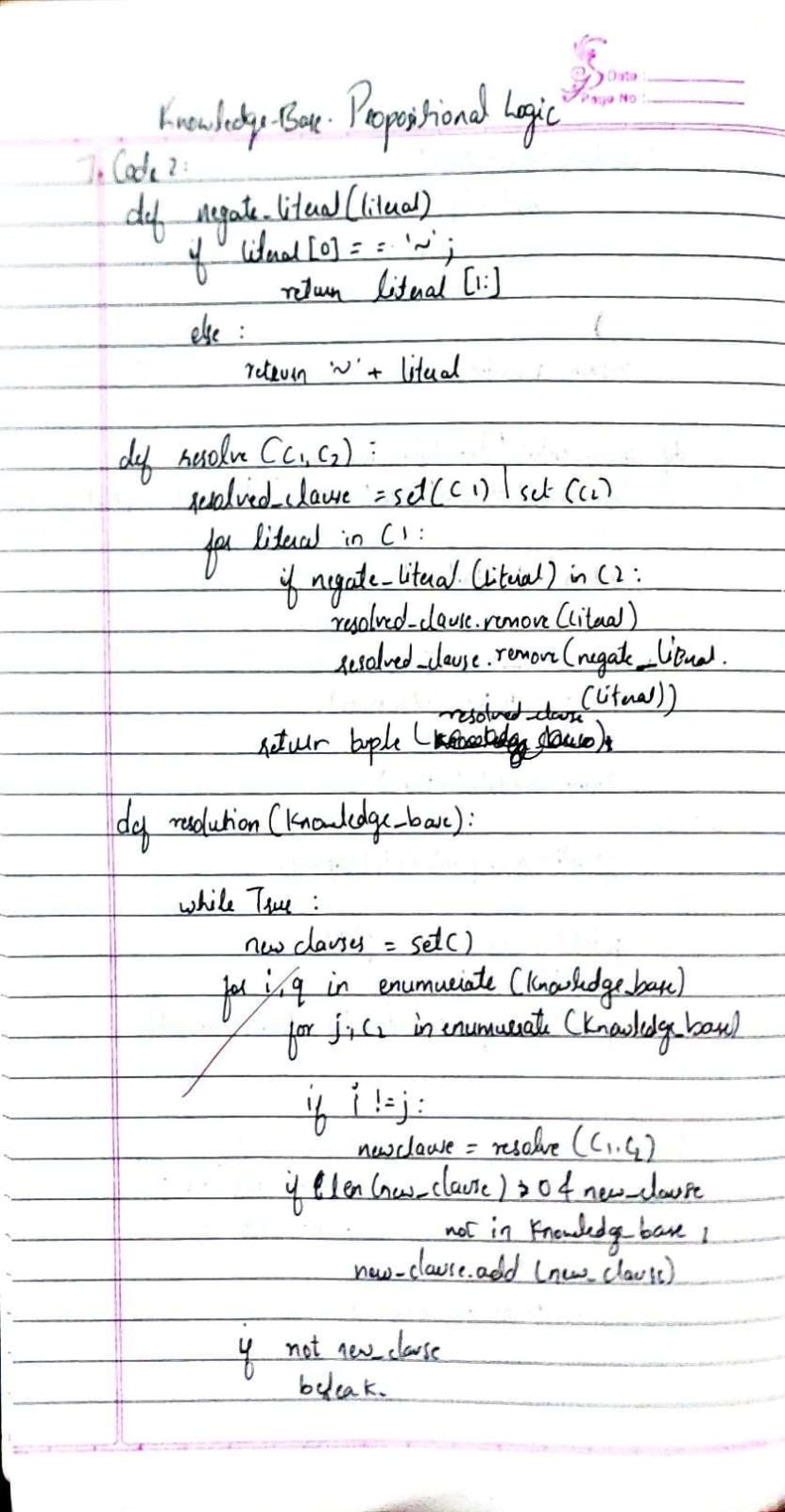


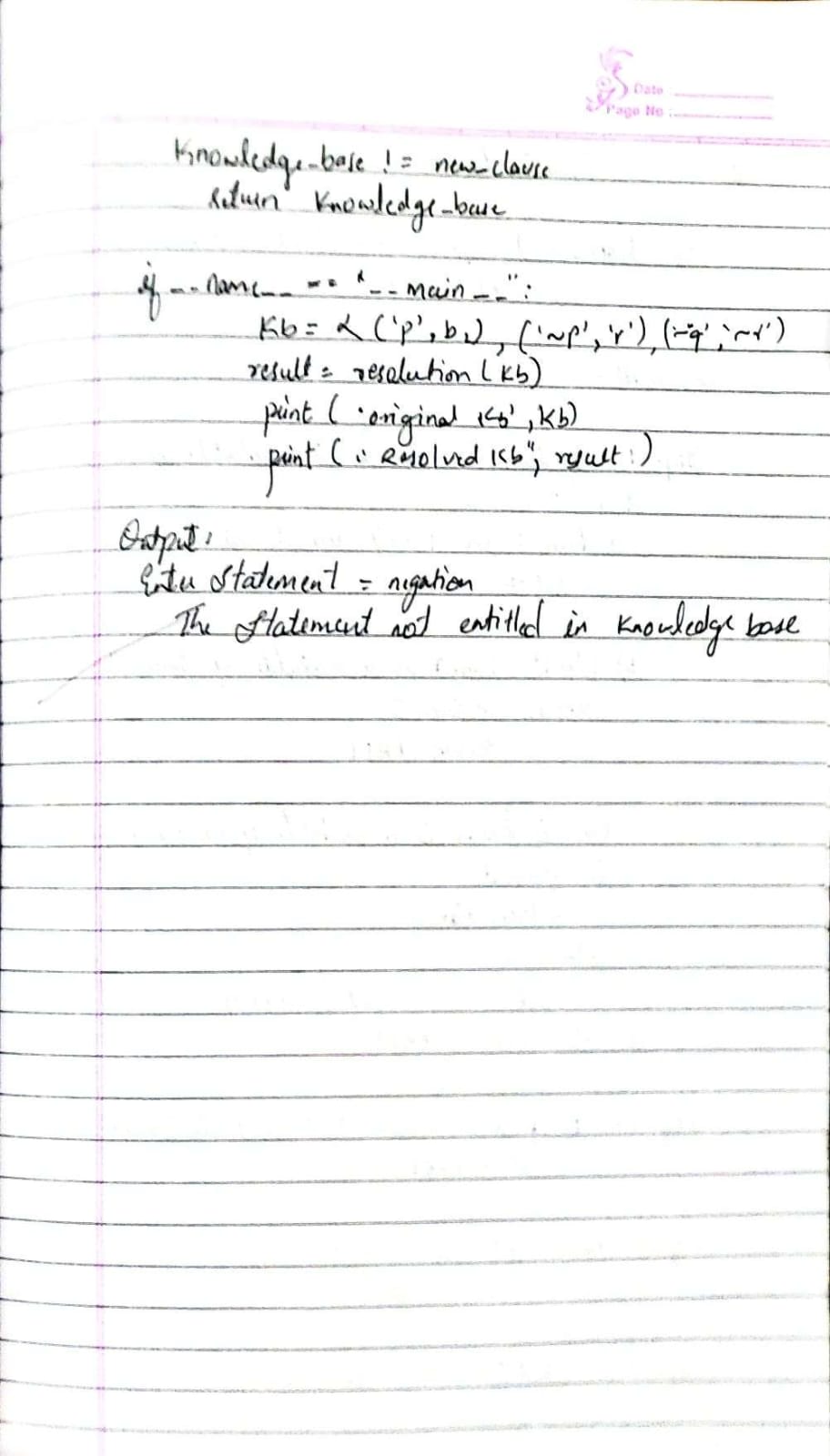
**6. Create a knowledge base using prepositional logic and show that the given query entails the knowledge base or not .**



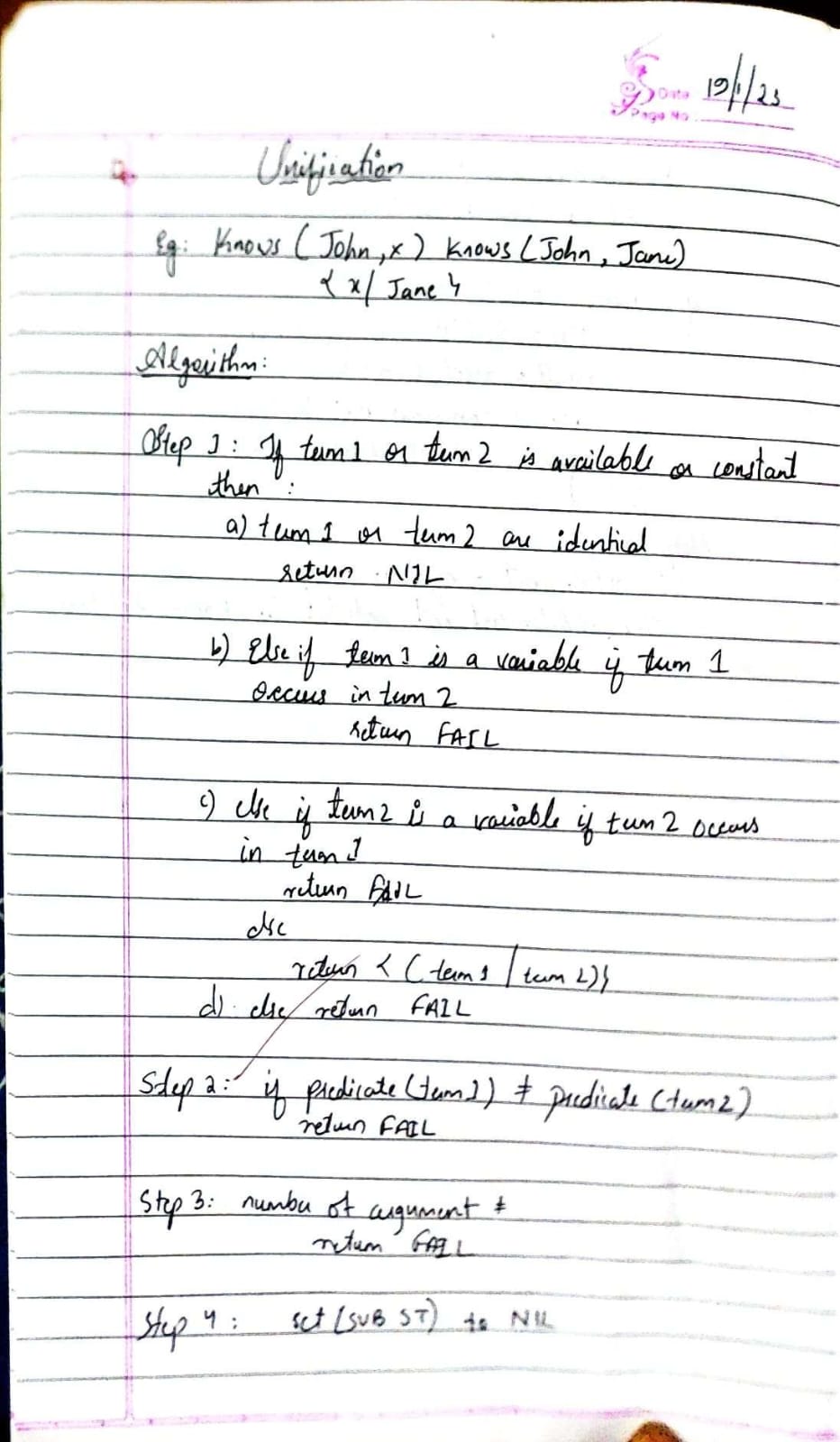


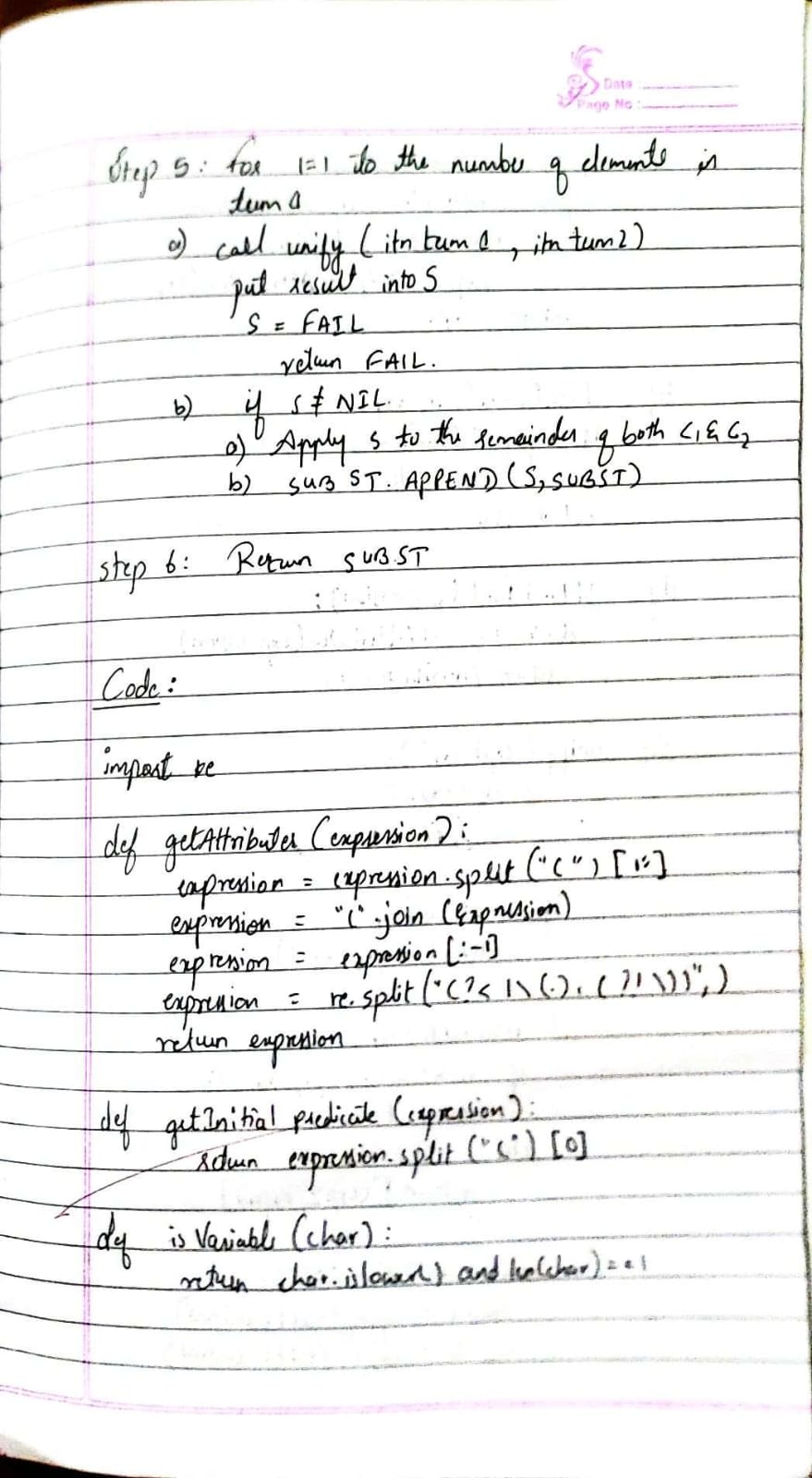
**7. Create a knowledge base using prepositional logic and prove the given query using resolution**

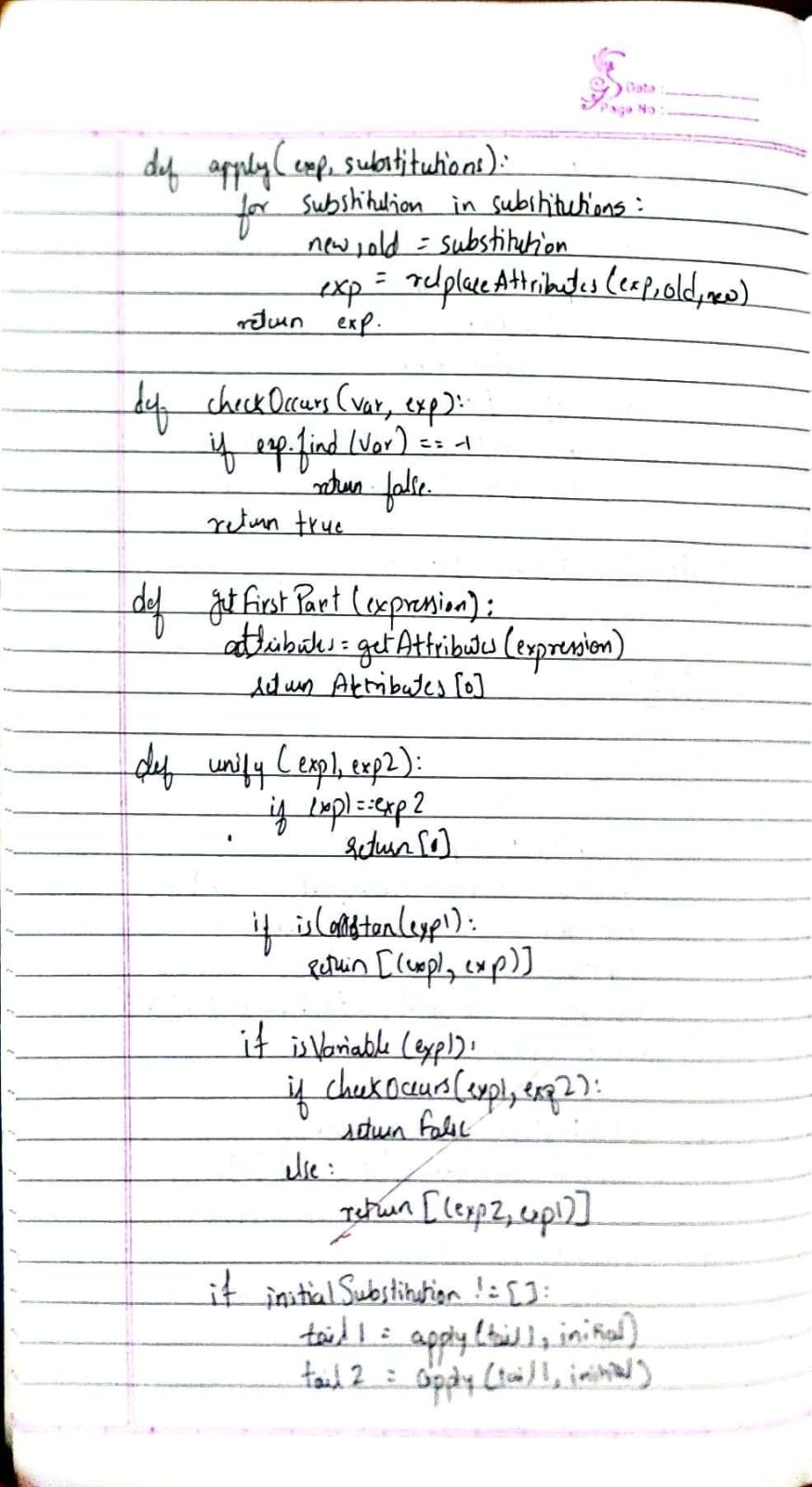


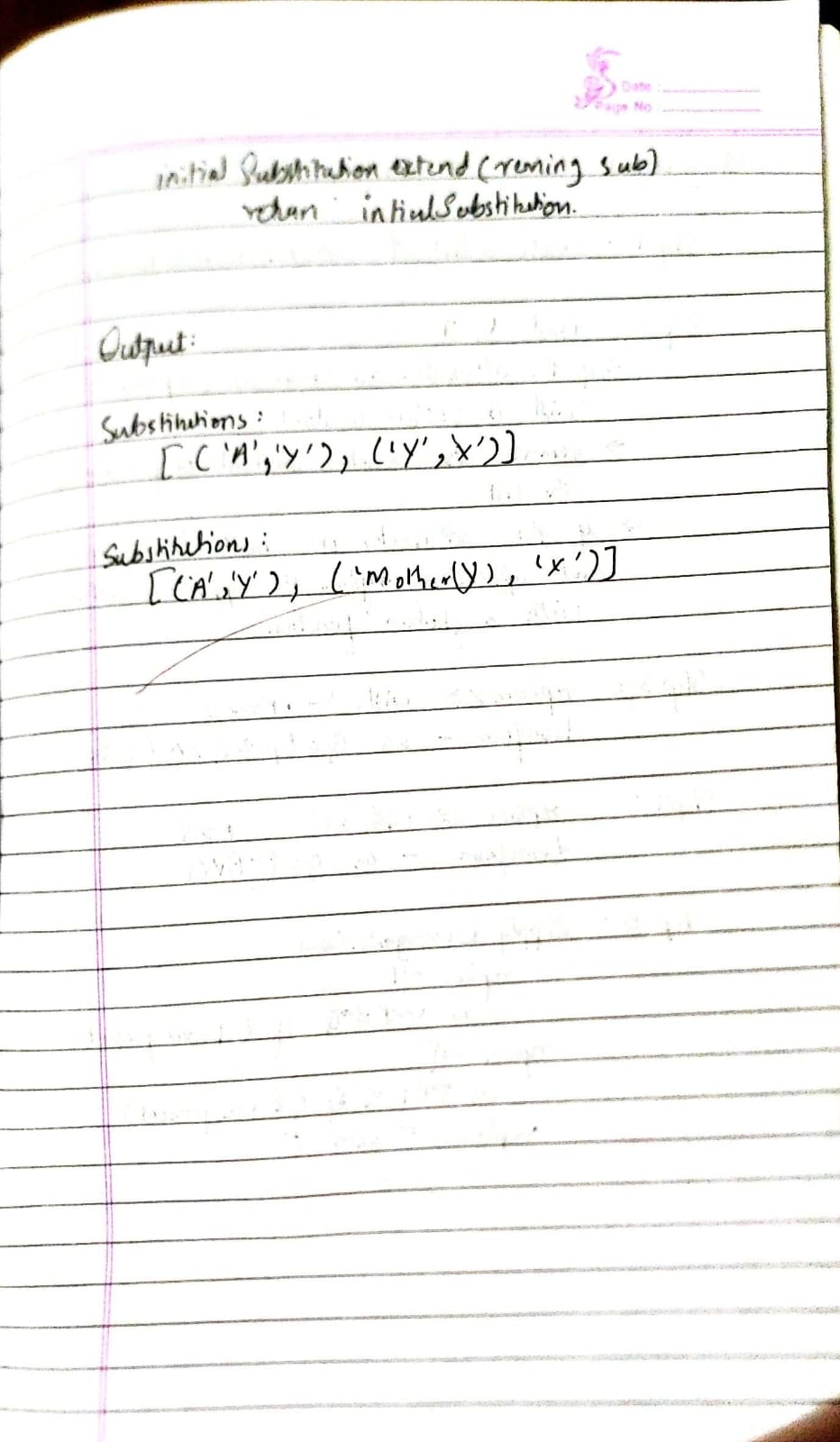


**8. Implement unification in first order logic :**

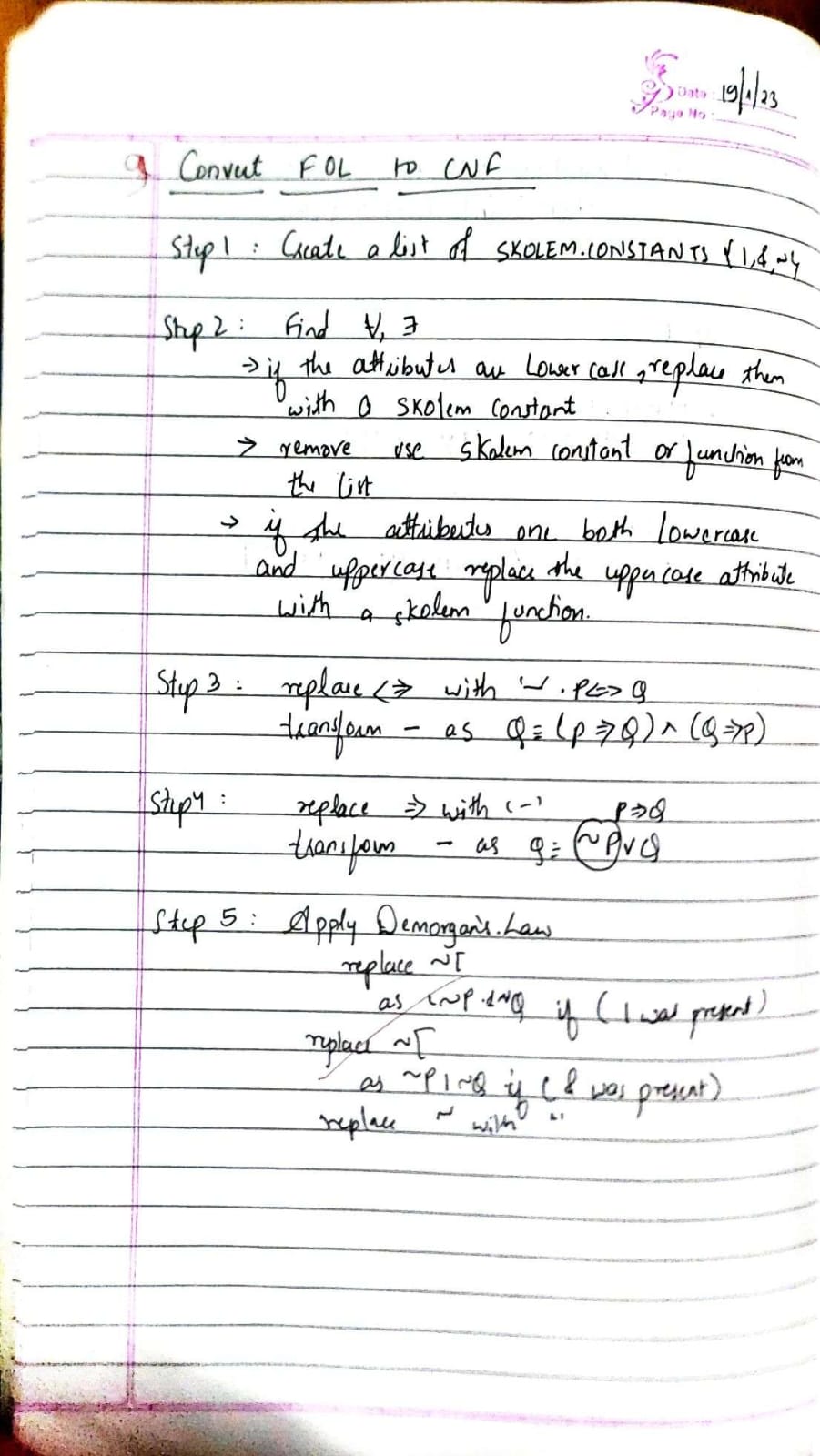


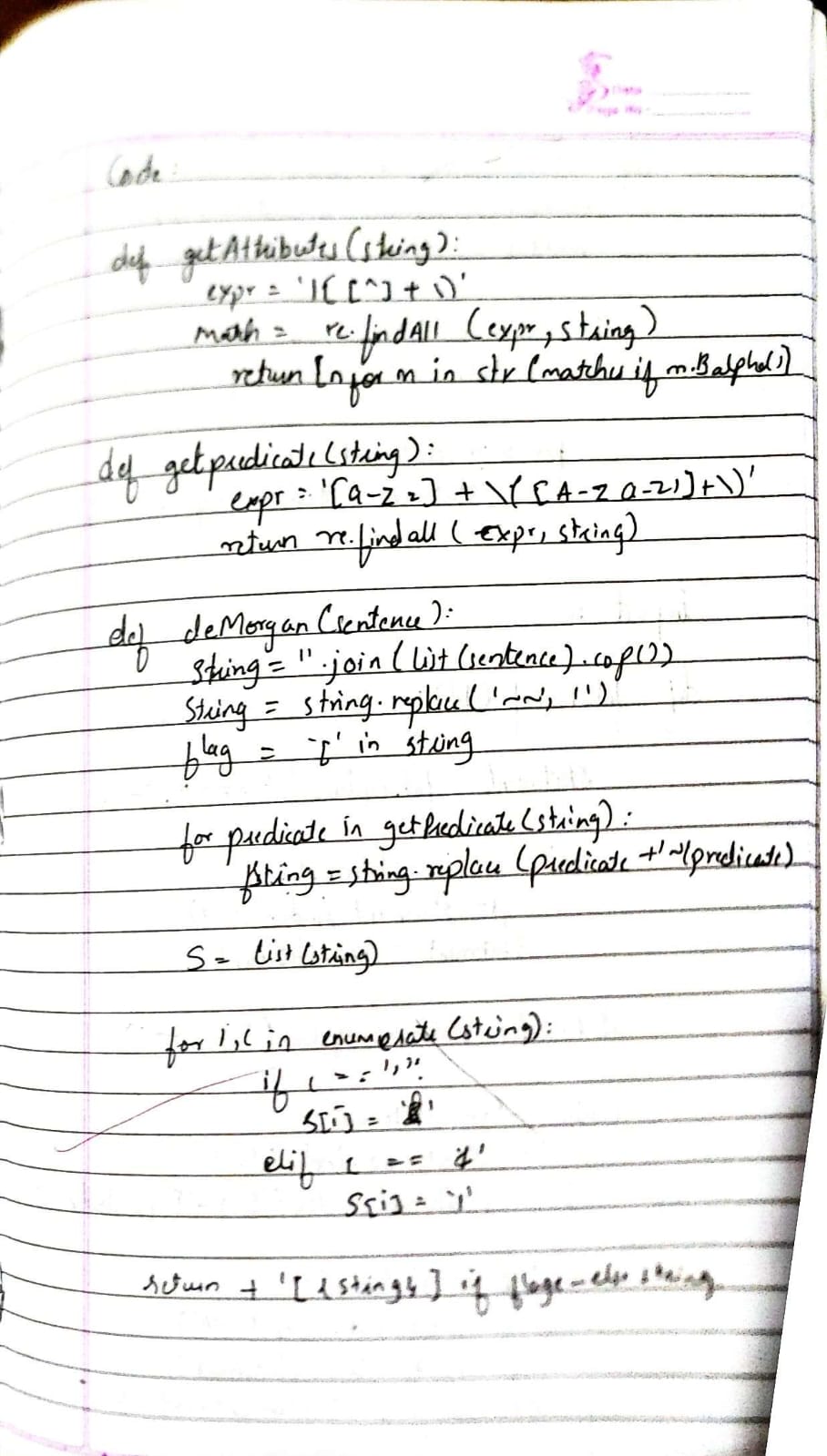


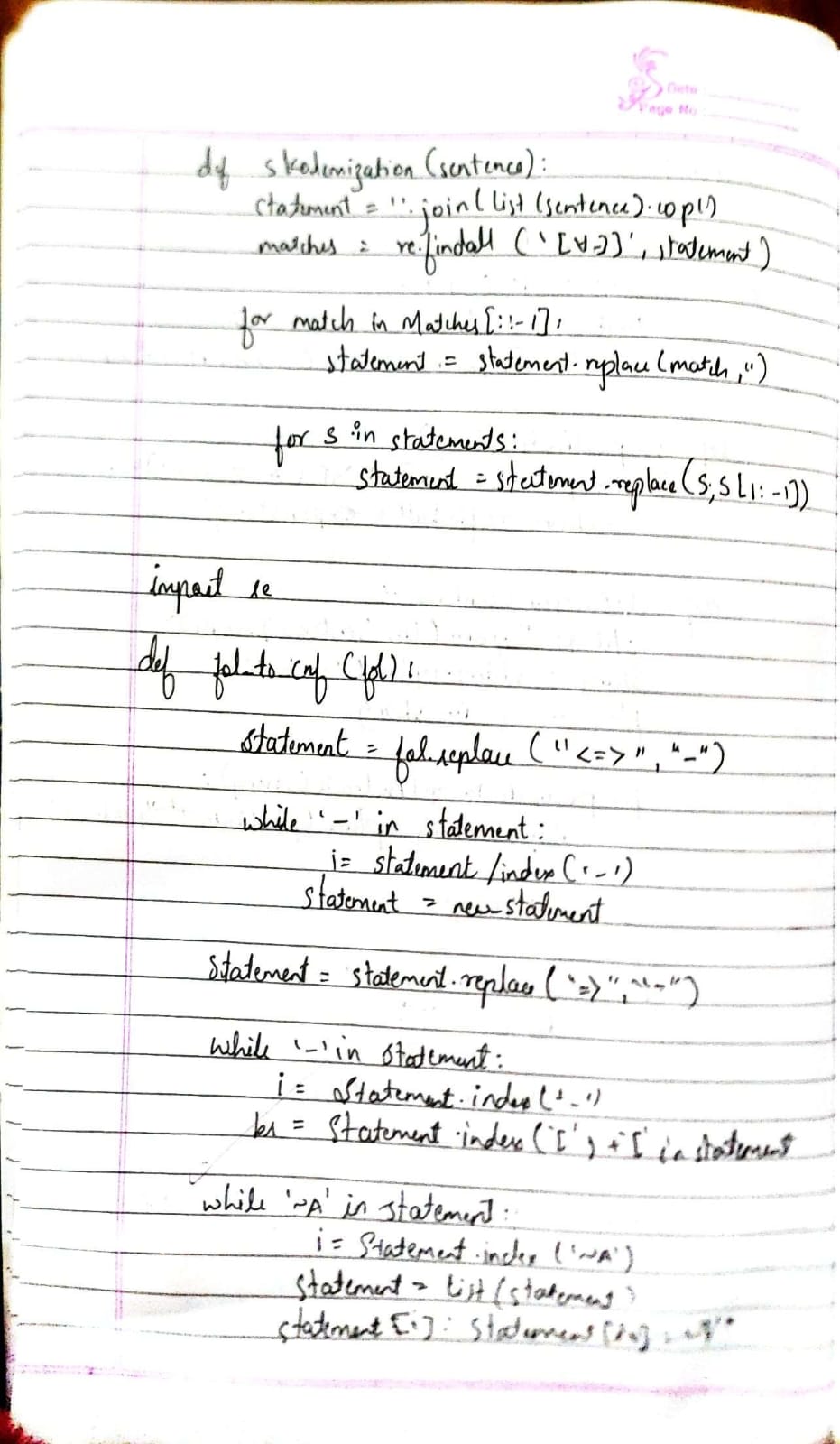


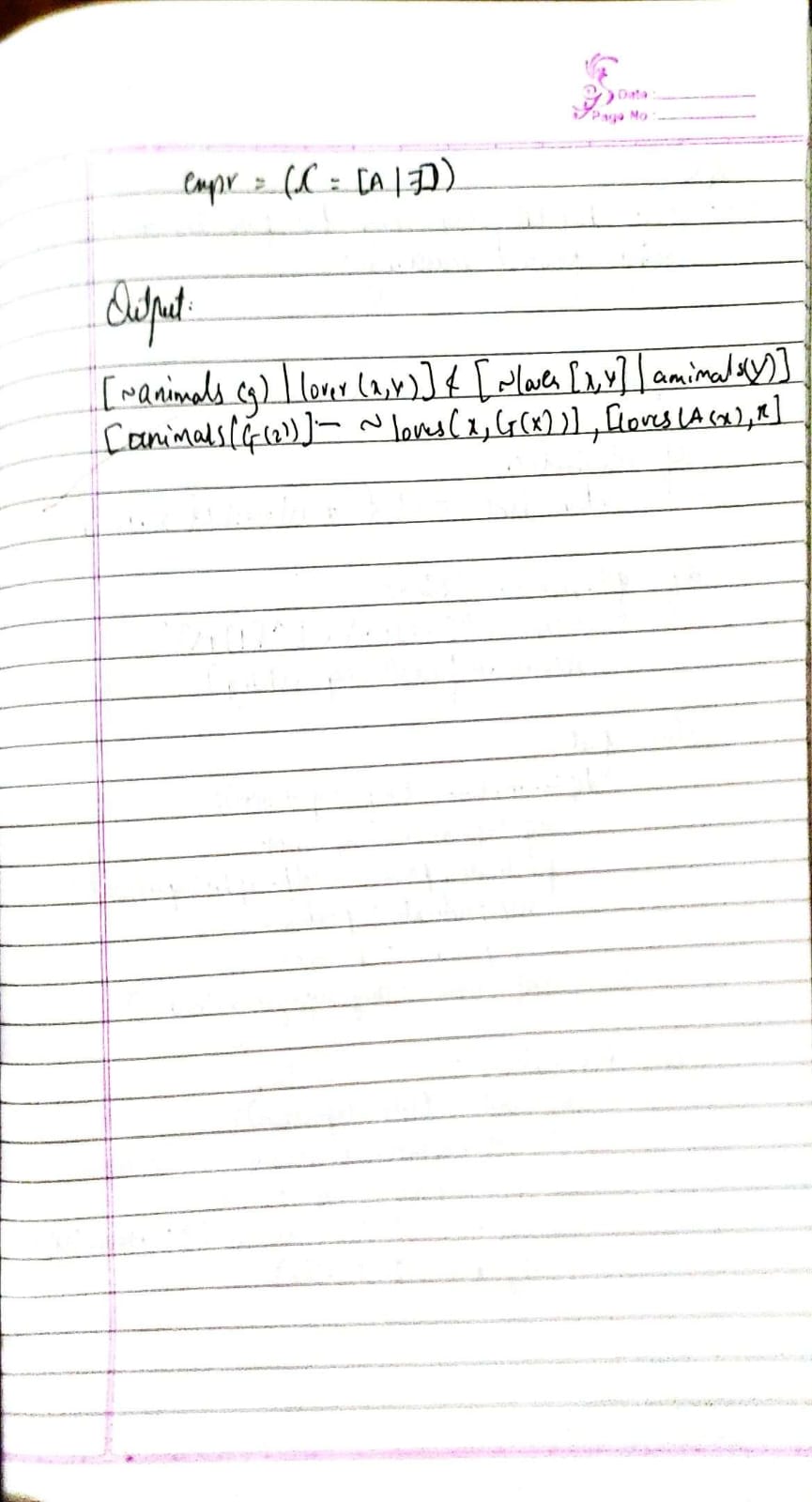


**9.Convert a given first order logic statement into Conjunctive Normal Form (CNF).**









**10. Create a knowledge base consisting of first order logic statements and prove the given query using forward reasoning**

