PROBLEM SOLVING TECHNIQUES

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1. Identify and analyze various problem-solving techniques and strategies used in computing.
2. Demonstrate the role of algorithms in computing and the importance of designing efficient algorithms.
3. Apply algorithms to solve problems such as finding the summation of a set of numbers and generating the Fibonacci sequence.
4. Manipulate variables and arithmetic expressions to achieve desired output using functions like printf in C programming.
5. Implement control flow structures to execute code based on specific conditions and loops.
6. Utilize multidimensional arrays and understand the initialization of pointer arrays to store and access data efficiently.
7. Calculate the square root of a number and determine the smallest divisor of an integer using algorithmic techniques.
8. Identify and implement algorithms to find the maximum number in a set and remove duplicates from an ordered array.
9. Solve problems related to finding the kth smallest element in an array and sorting elements by selection.
10. Apply binary search algorithm and pattern searching techniques to efficiently search for elements in arrays and strings.