Deadline: 2082/02/20 Tuesday

1. Write a function to calculate the factorial of a number.
2. Create a function to check if a number is prime.
3. Write a function that takes two numbers and returns their greatest common divisor (GCD).
4. Create a function to reverse a string.
5. Write a function to check whether a string is a palindrome.
6. Implement a function to generate the Fibonacci sequence up to `n` terms.
7. Create a function to find the largest element in an array.
8. Write a function that swaps two numbers using call by reference.
9. Implement a function to sort an array using the selection sort algorithm.
10. Write a function that counts vowels and consonants in a given string.
11. Create a function that converts Celsius to Fahrenheit.
12. Write a function to calculate the sum of digits of an integer.
13. Create a function to check if a number is an Armstrong number.
14. Write a function that reads an array and returns the average of its elements.
15. Implement a function to find the second-largest number in an array.
16. Define a structure Book with members: title, author, and price. Write a program to input and display the details of one book.
17. Create a structure Student with name, roll number, and marks. Write a function to input and display data of one student.
18. Create a structure Point representing a 2D point with x and y coordinates. Write a program to calculate the distance between two points.
19. Define a structure Employee with name, age, and salary. Write a program to find the employee with the highest salary among three employees.
20. Create a structure Date with day, month, and year. Write a function to compare two dates and return the later one
21. Define a structure Book with members: title, author, and price. Write a program to input and display the details of one book.

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26. Create a nested structure where Student contains a Date structure representing date of birth. Write a program to input and display data.
27. Define a structure Rectangle with length and width. Write functions to calculate area and perimeter using structures.
28. Create a structure BankAccount with name, account number, and balance. Write a function to deposit and withdraw money.
29. Define a structure Product with ID, name, and quantity. Write a program to update quantity after a sale.
30. Use a structure Address inside an Employee structure. Write a program to input and display full employee details.