▢ VARIABLES, DATA TYPES, OPERATORS

1. **Digit Sum Calculator** Ask the user for a number and calculate the sum of its digits. *Example: 753 → 7 + 5 + 3 = 15*

2. **Reverse a 3-digit Number** Input a 3-digit number and print it reversed. *Input: 123 → Output: 321*

3. **Unit Converter** Build a converter that takes meters and converts to:

   - centimeters
   - feet
   - inches

4. **Percentage Calculator** Input marks of 5 subjects and calculate total, average, and percentage. Display grade based on the percentage.

▢ CONDITIONALS

5. **Leap Year Checker** A year is a leap year if it's divisible by 4 and (not divisible by 100 or divisible by 400).

6. **Simple Calculator** Input two numbers and an operator (+ - * /) and perform the operation using `if...elif...else` .

7. **Triangle Validator** Given 3 side lengths, check whether they can form a valid triangle.

8. **Bill Splitter with Tip** Ask total bill amount, number of people, and tip percentage. Show final amount per person.

▢ LOOPS

9. **Find All Prime Numbers Between 1 and 100** Use a nested loop to check divisibility.

10. **Palindrome Checker** Ask for a string and check whether it reads the same backward.

11. **Fibonacci Series (First N Terms)** Input `n` , and print first `n` terms of the Fibonacci sequence.

12. **Multiplication Table (User Input)** Take a number and print its table up to 10:

```
5 x 1 = 5
5 x 2 = 10
...
```

13. **Number Guessing Game**
   - Generate a random number between 1 to 100
   - Ask the user to guess
   - Give hints: "Too High", "Too Low"

- Loop until the correct guess

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14. **ATM Machine Simulation**

- Balance starts at ⬚10,000
- Menu: Deposit / Withdraw / Check Balance / Exit
- Use a loop to keep asking
- Use conditionals to handle choices

15. **Password Strength Checker**

- Ask the user to enter a password
- Check if it's at least 8 characters
- Contains a number, a capital letter, and a symbol

16. **Find GCD (Greatest Common Divisor)**

- Input two numbers
- Use `while` loop or Euclidean algorithm