Welcome to **CodeSimple**, the language designed to teach coding in a simple and fun way!

Here are some basic commands to get you started:

1. **PRINT**: This command is used to display output on the screen. For example, "PRINT Hello, World!" would display the message "Hello, World!" on the screen.

2. **SET**: This command is used to assign a value to a variable. For example, "SET x = 5" would assign the value 5 to the variable x.

3. **ADD**: This command is used to add two numbers together. For example, "ADD 5 + 3" would return the value 8.

4. **SUBTRACT**: This command is used to subtract one number from another. For example, "SUBTRACT 7 - 3" would return the value 4.

5. **MULTIPLY**: This command is used to multiply two numbers together. For example, "MULTIPLY 2 * 4" would return the value 8.

6. **DIVIDE**: This command divides one number from another. For example, "DIVIDE 10 / 2" would return the value 5.

7. **IF**: This command is used to create conditional statements. For example, "IF x > 5 THEN PRINT x" would display the value of x only if it is greater than 5.

8. **LOOP**: This command is used to repeat a block of code. For example, "LOOP 10 TIMES PRINT x" would display the value of x ten times.

9. **LENSTR**: This command is used to calculate the length of a String (Number of characters in the string data). For example, LENSTR("CodeSimple") will provide the answer as 10 as the result.

10. **INPUT:** This command is used to get an input from the user. For example, INPUT "Enter your name: " username will give a message "Enter your name: " to the user and will wait for the user to provide the name. The name provided by the user will be stored in the username variable.

With these basic commands, you can start creating your own programs in CodeSimple.

Let's see the below questions and how you can use *CodeSimple* to solve these problems.

1. Q: Write a program that displays the message "Hello, world!" on the screen.

> A:
> ```
> PRINT "Hello, world!"
> ```

2. Q: Write a program that assigns the value 10 to a variable named "count", then displays the value of "count" on the screen.

> A:
> ```
> SET count = 10
> PRINT count
> ```

3. Q: Write a program that calculates the sum of two numbers (e.g. 5 and 3) and displays the result on the screen.

> A:
> ```
> SET num1 = 5
> SET num2 = 3
> SET sum = ADD num1 + num2
> PRINT sum
> ```

4. Q: Write a program that calculates the product of two numbers (e.g. 4 and 6) and displays the result on the screen.

> A:
> ```
> SET num1 = 4
> SET num2 = 6
> SET product = MULTIPLY num1 * num2
> PRINT product
> ```

5. Q: Write a program that prompts the user to enter a number, and then

displays whether that number is even or odd.

A:
```
INPUT "Enter a number: " num
IF num % 2 = 0 THEN
        PRINT "The number is even."
ELSE
        PRINT "The number is odd."
END IF
```
Note that "%" (modulo operator) is used to calculate the remainder after division of 2 numbers.

6. Q: Write a program that prompts the user to enter a string, then displays the string's length on the screen.

A:
```
INPUT "Enter a string: " str
SET length = LENSTR(str)
PRINT length
```

7. Q: Write a program that uses a loop to display the numbers from 1 to 10 on the screen.

A:
```
SET count = 1
LOOP 10 TIMES
        PRINT count
        SET count = ADD count + 1
END LOOP
```

8. Q: Write a program that uses an if statement to display the message "x is greater than y" if x is greater than y, or "y is greater than x" if y is greater than x.

A:
```
SET x = 10
SET y = 5
```

```
IF x > y THEN
        PRINT "x is greater than y"
ELSE
        PRINT "y is greater than x"
END IF
```

Now that you have understood the application of the commands of **Codesimple**, it's time to test your understanding by solving the below questions.

1. Write a program that displays the message "Welcome to CodeSimple!" on the screen.

2. Write a program that calculates the difference between two numbers (e.g. 15 and 7) and displays the result on the screen.

3. Write a program that takes two numbers as input from the user and displays the larger of the two numbers.

4. Write a program that uses a loop to display the even numbers from 2 to 20 on the screen.

5. Write a program that calculates the square of a number provided by the user and displays the result.

6. Write a program that calculates the factorial of a given number and displays the result. (Factorial of n is the product of all positive integers up to n)

7. Write a program that generates the Fibonacci sequence up to the 10th term and displays it.

8. Write a program that calculates the sum of all numbers from 1 to 100 and displays the result.

9. Write a program that calculates the average of three numbers provided by the user and displays the result.

10. Write a program that prompts the user to enter a positive integer and then displays all the even numbers up to that integer.