

Part 1

Question 1)

C	Python
Low-level	High-Level
Manual memory management	Manages memory automatically
Faster and more efficient	Slower and less efficient
More complex syntax	Easy-to-read syntax
Structed oriented	Object oriented

PROS	CONS
Better performance	Complex syntax
Low-level control over memory	Memory leaks and buffer overflows
Used in embedded systems	Limited standart library
High speed	Absence of error handling
Support the pointers	No strict type and run - time checking

Question 2)

Int:	Integers, 4 byte.
Char:	A single character, 1 byte.
Float:	Single-precision floating-point numbers, 4 byte.
Double:	Double-precision floating-point numbers, 8 byte.
Long:	Extended range integer values, 4 byte.
Short:	Short-range integer values, 2 byte.
Bool:	True or False, 1 byte.

Question 3)

A pointer is a derived data type. It can store the address of other variables or represent memory location. The type of a pointer represents the type of data it points to. Void* means a memory address without specifying the data type it points to.

Question 4)

In Code 1, "&number" gives us a float pointer. The float pointer is converted into an int pointer. Then, the value is taken by dereferencing. Shortly, float memory is treated as int memory. Code 1 gives a different result from the original value.

In Code 2, the program typecasts the float variable number into an integer, giving directly -42, which is the integer part of the float number.

Part 2

Question 1)

```
C:\Users\leozka\Desktop\EE44 x + v
Array Size: 10
arr[0]: -9
arr[1]: 8
arr[2]: 14
arr[3]: -21
arr[4]: 0
arr[5]: 3
arr[6]: 78
arr[7]: -65
arr[8]: 4
arr[9]: 21
-65.000000 -21.000000 -9.000000 0.000000 3.000000 4.000000 8.000000 14.000000 21.000000 78.000000
Process returned 0 (0x0) execution time : 56.066 s
Press any key to continue.
```

Question 2)

```
C:\Users\leozka\Desktop\EE44 x + v
Eda is 23 years old.
Deha is 23 years old.
Deha is 14 years old.

Process returned 0 (0x0) execution time : 0.027 s
Press any key to continue.
```

Question 3)

```
C:\Users\leozka\Desktop\EE44 x + v
Number:32
1 2 Fizz 4 Buzz Fizz 7 8 Fizz Buzz 11 Fizz 13 14 FizzBuzz 16 17 Fizz 19 Buzz Fizz 22 23 Fizz Buzz 26 Fizz 2
8 29 FizzBuzz 31 32
Process returned 0 (0x0) execution time : 3.259 s
Press any key to continue.
```