TP 2 - Problem 11 - I

```cpp
#include <cstring>
#include <iostream>

#define SHOW(arg) std::cout << "Macro SHOW “" #arg "”: " << (arg) << '\n';

// Only to learn pointer arithmetic.
char const *mystrstr(char const *phrase_ptr, char const *text_ptr) {
  // Offset from beginning of text.
  int offset{};
  while (true) {
    char const *current_text_ptr{text_ptr + offset};
    // All the text was scanned, not found...
    if (*current_text_ptr == '\0')
      return nullptr;
    char const *current_phrase_ptr{phrase_ptr};
    // Scan both strings as long as they are equal.
    while (*current_text_ptr++ == *current_phrase_ptr++)
      // All the phrase was scanned, found!
      if (*current_phrase_ptr == '\0')
```

TP 2 - Problem 11 - II

```
20            return text_ptr + offset;
21        // Increment the offset.
22        ++offset;
23      }
24    }
25
26    int main() {
27      SHOW(mystrstr("target", "target"))
28      SHOW(std::strstr("target", "target"))
29      SHOW(mystrstr("target", "before-target"))
30      SHOW(std::strstr("before-target", "target"))
31      SHOW(mystrstr("target", "before-target-after"))
32      SHOW(std::strstr("before-target-after", "target"))
33      SHOW(mystrstr("target", "blabla") == nullptr)
34      SHOW(std::strstr("blabla", "target") == nullptr)
35      return 0;
36    }
```

TP 2 - Problem 11 - III

Output:

```
1  Macro SHOW “mystrstr("target", "target")”: target
2  Macro SHOW “std::strstr("target", "target")”: target
3  Macro SHOW “mystrstr("target", "before-target")”: target
4  Macro SHOW “std::strstr("before-target", "target")”: target
5  Macro SHOW “mystrstr("target", "before-target-after")”: target-after
6  Macro SHOW “std::strstr("before-target-after", "target")”: target-after
7  Macro SHOW “mystrstr("target", "blabla") == nullptr”: 1
8  Macro SHOW “std::strstr("blabla", "target") == nullptr”: 1
```