1. This is a sample literate programming file. We will simply compute the first 20 fibonacci numbers.

```
#include <stdio.h>
  ⟨ calculate a fibonacci number 2 ⟩⟨ main 3 ⟩
```

2. ⟨ calculate a fibonacci number 2 ⟩ ≡

```
size_t fib(size_t i)
{
  size_t n = 0;
  size_t nn = 1;
  size_t ii = i;
  i = 0;
  for ( ; i < ii; i++) {
    size_t m = n;
    n = nn;
    nn = nn + m;
  }
  return n;
}
```

This code is used in section 1.

3. ⟨ main 3 ⟩ ≡

```
int main(void)
{
  size_t i = 0;
  size_t ii = 20;
  for ( ; i < ii; i++) {
    size_t r = fib(i);
    fprintf(stdout, "%d:%d\n", (int) i, (int) r);
  }
  return 1;
}
```

This code is used in section 1.

4. Index.

⟨ calculate a fibonacci number 2 ⟩ Used in section 1.
⟨ main 3 ⟩ Used in section 1.

FIB