The `fibonacci` function is a famous function which implements this algorithm: $F_n = F_{n-1} + F_{n-2}$

In the future, it might be desirable to update this fibonacci implementation to be a more optimized form. The two main ways of doing so would be to:

- Modify this recursive fibonacci function to memoize its output; or
- Rewrite the function to use an iterative algorithm rather than a recursive one.

```
\fun{fibonacci}{n}{
    if n <= 2 {
        return 1;
    } else {
        return fibonacci(n - 1) + fibonacci(n - 2);
    }
}
```

The `main` function is the entry point of our program. This `main` function loops through all the fibonacci numbers from 1 to 10 and prints them.

```
\fun{main}{}{
    n := 1;
    while n <= 10 {
        print("fib(" + n + "):", fibonacci(n));
        n = n + 1;
    }
}
```