True or false? (unless otherwise specified)

1. In the Julia REPL, the key `;` enables to access *package mode*, from where software libraries can be installed and uninstalled.

2. In Julia, the first piece of code below (left) produces an error, while the second (right) plots the sine function (assuming that package `Plots` is already installed).

```
import Pkg
Pkg.add("Plots")
plot(cos + sin)
```

```
using Plots
plot(sin)
```

3. Complete the following code so that `f(n)` returns the n-th element f_n of the Fibonacci sequence $(f_1, f_2, f_3, \dots)$. Recall that, by definition, $f_1 = f_2 = 1$ and $f_n = f_{n-1} + f_{n-2}$ for $n \geqslant 3$.

```
f(n) = n in (1, 2) ? 1 :
```

4. In Julia, the following boolean expression is `true`:

```
sin([1.0, 2.0, 3.0]) == [sin(1.0), sin(2.0), sin(3.0)]
```

5. In the following code, the value of `a` is 15. (You may find it useful to read the documentation for the `sum` function to answer this question.)

```
a = sum(n -> n^2 - 1, [1, 2, 3])
```

6. In Julia, the command `[1, 2, 3] .* [1, 2, 3]` returns the array `[1, 4, 9]`.

7. In the following code, the variable `a` is an array (more precisely, a `Vector`) containing $\sqrt{34}$ and $\sqrt{160}$.

```
hypotenuse(x, y) = sqrt(x^2 + y^2)
a = hypotenuse.([3, 5], [4, 12])
```

8. The following piece of code prints `2`.

```
f(x::Float64) = 1
f(x::Int) = 2.0
@show f(f(1))
```

9. In a Jupyter notebook, the output displayed below a cell comes from the last expression evaluated in that cell. If that expression returns a value (like a number, a string or a plot object), Jupyter automatically displays it.

10. The following program prints the value 15.

```
result = 0
for i in 1:5
    result = result + i
end
println(result)
```

11. In Julia, arrays are indexed starting from `1`, not `0`.

12. In Julia, `=` is the equality operator, while `==` is the assignment operator.

13. In Julia, a function can be defined using the syntax `f(x) = x^2`

14. **Bonus.** The following code produces an assertion error

```
v = [[1, 2, 3], [2, 3, 4], [4, 5, 6]]
sum.(v) == [6, 9, 15]
```