

# OCaml

## Getting Started Reference Sheet

### Administrivia

- ◇ Command line interpreter, REPL, begun with `ocaml` and exited with `exit 0;;`
  - All expressions in REPL must be terminated with `;;`, not so in a script.

```
# let rec x = 4 and woah (a, b) c = print_endline a ; print_endline b; x + c ;;
val x : int = 4
val woah : string * string -> int -> int = <fun>

# woah ("currying", "or not") 12 ;
currying
or not
- : int = 16
```

Note the keywords for mutual recursion: `let rec ... and ....`
  - For a source file: `ocamlc -i path/to/file.ml`. This prints all names and type signatures as well.
- ◇ Only multi-line, nestable, comments: `(* ... *)`.
- ◇ All declarations are preceded by `let` or `let rec` for recursive ones.
- ◇ Sequencing is via `;` and the result is the value of the final expression.
- ◇ Anonymous functions use the syntax: `fun x ... x -> ...`
  - `function` in-place of `fun` also works.
  - Infix functions can be used in prefix by enclosing them in parens; e.g., `(+)`  
`1 2.`