## STRING EXPRESSIONS (5/5 points)

What is the result of compiling and evaluating `"12" + "34"`?

- ○ Syntax error.
- ◉ Type error. ✔
- ○ `46`
- ○ `1234`
- ○ `"1234"`

The **string-concatenation** operator is `^`. The `+` operator is only the integer addition.

What is the result of compiling and evaluating `"12" ^ (string_of_int 3) ^ "45"`?

- ○ Syntax error.
- ○ Type error.
- ○ `12345`
- ◉ `"12345"` ✔

- The `string_of_int` function pretty-prints an integer into a string. The evaluation of `(string_of_int 3)` is then the string `"3"`

- String literals are always written between double quotes, even by the generic printer included in the OCaml toplevel.

What is the result of compiling and evaluating `"12" ^ string_of_int 3 ^ "45"`?

- ○ Syntax error.
- ○ Type error.
- ○ `12345`
- ◉ `"12345"` ✔

Function application has a higher priority than the basic infix operators (`+`, `*.`, `^`, `mod`, ...). Then, this expression is read: `"12" ^ (string_of_int 3) ^ "45"`

What is the result of compiling and evaluating `"She texted me: "hi :-)"!!!"`?

- ◉ Syntax error. ✔
- ○ Type error.
- ○ `"She texted me: "hi :-)"!!!"`

- As usual, special characters in string needs to be **escaped**, e.g. in this particular string the `"` character.
- A correct string constant could be `"She texted me: \"hi :-)\"!!!"`

What is the result of compiling and evaluating `String.get "abcd" 1`?

- Syntax error.
- Type error.
- `'a'`
- `a`
- `'b'` ✔
- `b`

- Quoting the OCaml manual: "`String.get s n` returns the character at index `n` in string `s`".
- As usual, character indexes in strings **starts at 0**.
- **Character literals** are written between single quotes: for instance `'a'`, `'A'` or `' '`.

*Vous avez utilisé 1 essais sur 3*

## STRING EXPRESSIONS (BIS) (4/4 points)

**Warning:** you only have 1 attempt (but anyway the result will not count in the final grading).

What is the result of compiling and evaluating `"12" ^ "34"`?

- Syntax error.
- Type error.
- `46`
- `1234`

- [x] `"1234"` ✔

The `^` operator is the string concatenation.

What is the result of compiling and evaluating `12 + "34"`?

- [ ] Syntax error.
- [x] Type error. ✔
- [ ] `46`
- [ ] `1234`
- [ ] `"1234"`

No implicit conversion between types in OCaml.

What is the result of compiling and evaluating `"She texted me: \"hi :-)\"!!!"`?

- [ ] Syntax error.
- [ ] Type error.
- [ ] `She texted me: "hi :-)"!!!`
- [x] `"She texted me: \"hi :-)\"!!!"` ✔

This string literal is properly escaped.

What is the result of compiling and evaluating `String.get "zyxw" 2`?

- Syntax error.
- Type error.
- `'z'`
- `'y'`
- `'x'` ✔
- `'w'`

Character indexes in strings starts at 0.

*Vous avez utilisé 1 essais sur 1*

## CONVERSION FUNCTIONS (3/3 points)

What is the result of compiling and evaluating `(int_of_string "12") + 3` ?

- Syntax error.
- Type error.
- `15` ✔
- `"123"`

- The `int_of_string` function returns the integer value read in its string argument. Or fails, if its argument does not represent an integer.
- The sub-expression `(int_of_string "12")` evaluates into the integer value of `12` .

What is the result of compiling and evaluating `float_of_string "12.5" +. 2.5`?

- Syntax error.
- Type error.
- `15.` ✔
- `"12.52.5"`

Function application has greater priority than the basic infix operators like `+.`; the expression is read `(float_of_string "12.5") +. 2.5`. It is a valid floating-point expression.

What replacement for the function `f` renders the expression `f 3. ^ "1415"` correct?

- `string_of_int`
- `string_of_float` ✔
- `int_of_float`
- `int_of_string`
- `float_of_int`
- `float_of_string`

- This expression is read as: `(f 3.) ^ "1415"`.

- For the expression to be valid, the sub-expression `(f 3.)` should be of type `string`.
- The literal `3.` being a float literal, the `f` function should be a function that receives a `float` and returns a `string`.

*Vous avez utilisé 1 essais sur 3*

## CONVERSION FUNCTIONS (BIS) (4/4 points)

**Warning:** you only have 1 attempt (but anyway the result will not count in the final grading).

What replacement for the function `f` renders the expression `f "3" + 1415` correct?

- ○ `string_of_int`
- ○ `string_of_float`
- ○ `int_of_float`
- ◉ `int_of_string` ✔
- ○ `float_of_int`
- ○ `float_of_string`

This is the integer addition and `"3"` is a string literal.

What replacement for the function `f` renders the expression `f 3 ^ "1415"` correct?

- ◉ `string_of_int` ✔
- ○ `string_of_float`

- `int_of_float`
- `int_of_string`
- `float_of_int`
- `float_of_string`

This is a string concatenation and `3` is an integer literal.

What replacement for the function `f` renders the expression `f 3 +. 1415.` correct?

- `string_of_int`
- `string_of_float`
- `int_of_float`
- `int_of_string`
- `float_of_int` ✔
- `float_of_string`

This is a floating-point addition and `3` is an integer literal.

What replacement for the function `f` renders the expression `f 3 < "1415"` correct?

- `string_of_int` ✔
- `string_of_float`

- `int_of_float`
- `int_of_string`
- `float_of_int`
- `float_of_string`

This is a polymorphic comparison against a string and `3` is an integer literal.

*Vous avez utilisé 1 essais sur 1*

## COMPARISON EXPRESSIONS (3/3 points)

What is the result of compiling and evaluating `"abcd" = ("ab" ^ "cd")`?

- Syntax error.
- Type error.
- `false`
- `true` ✔

Polymorphic comparison operators are able to compare strings.

What is the result of compiling and evaluating `"a" ^ "bcd" = "ab" ^ "cd"`?

- Syntax error.
- Type error.

- ○ `false`
- ◉ `true` ✔

The concatenation operator `^` has a greater priority than the equality operator `=`. This expression is read as `("a" ^ "bcd") = ("ab" ^ "cd")` and both sub-expressions evaluate to `"abcd"`.

What is the result of compiling and evaluating `"Alphabet" < "Gammadelt"`?

- ○ Syntax error.
- ○ Type error.
- ○ `false`
- ◉ `true` ✔

The comparison of strings is based on the (ASCII-)alphanumerical order.

*Vous avez utilisé 1 essais sur 3*

## BOOLEAN EXPRESSIONS (3/3 points)

**Warning:** you only have 1 attempt (but anyway the result will not count in the final grading).

What is the result of compiling and evaluating `"Aa" < "Ob" && "Wagon" <> "Zephyr"`?

- ○ Syntax error.
- ○ Type error.

- `false`



The comparison of strings is based on the (ASCII-)alphanumerical order.

What is the result of compiling and evaluating `12 <= "34" || 56 <= 78`?

- Syntax error.
- Type error. ✔
- `false`
- `true`

You can't compare integer and string without explicit conversion of one of the arguments.

What is the result of compiling and evaluating `not ("12" <= "34" || 56 <= 78)`?

- Syntax error.
- Type error.
- `false` ✔
- `true`

The two comparisons are true.

*Vous avez utilisé 1 essais sur 1*