CONDITIONAL EXPRESSIONS (4/4 points)

What is the result of compiling and evaluating `if 1 = 2 then "abc" else "def"`?

- Syntax error.
- Type error.
- `"abc"`
- `"def"` ✔

- A conditional expression is well-typed when the condition is a boolean expression and the two branches share the same type.
- The condition evaluating to `false`, the conditional expression evaluates like its second branch.

What is the result of compiling and evaluating `if 1 = 2 then 3 else 4.5`?

- Syntax error.
- Type error. ✔
- `3`
- `4.5`

The first branch contains an integer expression, while the second branch contains a floating-point expression.

What is the result of compiling and evaluating `if (1 <> 2) then 3 else 4`?

- Syntax error.
- Type error.
- `3` ✔

- `4`

The parenthesis around the conditional expression are not mandatory.

What is the result of compiling and evaluating `if 1 then 2 else 3`?

- Syntax error.
- Type error. ✔
- `2`
- `3`

The integer literal `1` is not a valid boolean expression.

Vous avez utilisé 1 essais sur 3

CONDITIONAL 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 `if 1 = 2 then 34 else "56"`?

- Syntax error.
- Type error. ✔
- `34`
- `"56"`

The first branch contains an integer expression, while the second branch contains a string expression.

What is the result of compiling and evaluating `if 1 < "2" then 3.4 else 5.6`?

- Syntax error.

- (•) Type error. ✔
- ( ) `3.4`
- ( ) `5.6`

One cannot compare integer and string expressions without explicit conversion.

What is the result of compiling and evaluating `if "Amazone" < "Amour" then 3.4 else 5.6`?

- ( ) Syntax error.
- ( ) Type error.
- (•) `3.4` ✔
- ( ) `5.6`

In the alphanumerical order, "Amazone" comes before "Amour".

What is the result of compiling and evaluating `if 0 then 1 else 2`?

- ( ) Syntax error.
- (•) Type error. ✔
- ( ) `1`
- ( ) `2`

The integer literal `0` is not a valid boolean expression.

Vous avez utilisé 1 essais sur 1

NESTED CONDITIONAL EXPRESSIONS (3/3 points)

What is the result of compiling and evaluating `1 + (if 2 = 3 then 4. else 5.)`?

- Syntax error.
- Type error. ✔
- `5`
- `5.`
- `6`
- `6.`

- The conditional is the right operand of an integer addition.
- The two branches of the conditional contain floating-point expressions. Then, the conditional is a valid floating-point expression and not the expected integer expression.

What is the result of compiling and evaluating `if (if 1 = 2 then 3 else 4) <> 5 then 6 else 7`?

- Syntax error.
- Type error.
- `6` ✔
- `7`

The inner conditionnal is a valid integer expression that can safely be compared to `5`.

What is the result of compiling and evaluating `if 1 <> 2 then (if 3 <> 4 then 6 else 7) else 8`?

- Syntax error.
- Type error.
- `6` ✔

- `7`
- `8`

- This expression is more readable when written:

```
if 1 <> 2 then
  if 3 <> 4 then 6 else 7
else
  8
```

- The parenthesis around the inner conditionnal are not mandatory.
- The two conditionnals are valid integer expressions.
- Both conditions are valid boolean expressions that evaluates to `true`.

Vous avez utilisé 1 essais sur 3

NESTED CONDITIONAL 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 `1 + (if 2 = 3 then 4 else 5)`?

- Syntax error.
- Type error.
- `5`
- `6` ✔

This is a valid integer expression.

What is the result of compiling and evaluating
`if 1 <> 2 then if 3 = 4 then 'a' else 'b' else 'c'`?

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

- ◉ `'b'` ✔
- ○ `'c'`

This is a valid character expression.

What is the result of compiling and evaluating
`if 1 = 2 then (if 3 = 4 then 'a' else 'b') else (if 'c' <> 'd' then 'e' else '`
?

- ○ Syntax error.
- ○ Type error.
- ○ `'a'`
- ○ `'b'`
- ○ `'c'`
- ○ `'d'`
- ◉ `'e'` ✔
- ○ `'f'`

This is a valid character expression where the two branches of the outer conditional contain valid character conditional expressions.

What is the result of compiling and evaluating
`if 1 = 2 then if 3 = 4 then 5 else 6 else if 'a' <> 'b' then 'c' else 'd'` ?

- ○ Syntax error.
- ◉ Type error. ✔
- ○ `5`
- ○ `6`

- `'c'`
- `'d'`

- This is better read:

```
if 1 = 2 then
  if 3 = 4 then 5 else 6
else
  if 'a' <> 'b' then 'c' else 'd'
```

- The first branch of the outer conditional contains an integer expression, while its second branch contains a character expression.

Vous avez utilisé 1 essais sur 1