

- Please write all your Haskell functions from this exercise sheet into a single .hs-file and upload it in OLAT.
- You can use a template .hs-file that is provided on the proseminar page.
- The file should compile with ghci.
- Once the file has been uploaded, it cannot be changed or resubmitted!

### Exercise 5.1 *Live exercise*

We want to write Boolean expressions with `+` and `*` instead of the usual symbols. Therefore, make the type `Bool` an instance of the class `Num`, cf. slide 19 of part 3 or the following URL:

<http://hackage.haskell.org/package/base-4.12.0.0/docs/Prelude.html#g:7>

You can leave the functions `abs` and `signum` undefined. Find sensible definitions for the other functions. Then evaluate the following expressions.

```
True + False
```

```
True + 0
```

```
True - False == True + (- False)
```

```
(True + False) + (True * False) == True
```