

Haskell notes based on Learn You A Haskell For Great Good

Ubuntu

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Contents

1	Setup	1
2	Basics	1
2.1	Numbers, strings, booleans, and expressions	1
2.2	Functions	3
2.3	Lists	3
2.4	Ranges	3
2.5	Comprehensions	3
2.6	Tuples	3

1 Setup

See What you need to dive in.

These notes will be in literate programming style. All code will be compiled and executed using GHC.

2 Basics

2.1 Numbers, strings, booleans, and expressions

Simple arithmetic

`5 + 2`

7

```
10 + 14.5
```

```
24.5
```

Default type for numbers is floating point:

```
7 / 2
```

```
3.5
```

Be careful with negative numbers:

```
5 * -2
```

```
<interactive>:32:1:
```

```
Precedence parsing error
```

```
cannot mix '*' [infixl 7] and prefix '-' [infixl 6] in the same infix expression
```

Better to surround negative numbers with parens:

```
5 * (-2)
```

```
-10
```

Parens

Alright, parens are important to explicitly tell the compiler your precedence:

```
50 * (100 - 4999)
```

```
-244950
```

Otherwise, regular operator precedence rules will apply:

```
50 * 100 - 4999
```

```
1
```

Boolean algebra

Let's look at these keywords and operators: `TRUE`, `FALSE`, `not`, logical AND `&&`, logical OR `||`

```
True && False
```

False

True && True

True

False || True

True

not False

True

not (True && True)

False

2.2 Functions

2.3 Lists

2.4 Ranges

2.5 Comprehensions

2.6 Tuples