

Unit 2 - Week 1: Introduction

Course outline

How to access the portal

Week 1: Introduction

- Functions
- Types
- Haskell
- Running Haskell programs
- Currying
- Examples
- Week 1 Feedback
- Quiz : Assignment 1

Week 2: Lists, Strings, Tuples

Week 3: Rewriting, Polymorphism, Higher Order Functions on Lists

Week 4: Efficiency, Sorting, Infinite lists, Conditional polymorphism, Using ghci

Week 5: User-defined datatypes, abstract datatypes, modules

Week 6: recursive data types, search trees

Week 7: arrays, IO

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Text Transcripts

1st Nov Programming Test Session-1 (10am-12 noon)

1st Nov Programming Test Session-2 (8pm-10pm)

Assignment 1

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2019-09-11, 23:59 IST.

1) Consider the following Haskell definition.

1 point

```
f x y z = x || not (not y /= z)
```

Which of the following is a possible type of f?

- (Bool, Bool, Bool) -> Bool
- Bool -> Bool -> Int -> Bool
- Bool -> Int -> Int -> Bool
- Bool -> Bool -> Bool -> Bool

No, the answer is incorrect.
Score: 0

Accepted Answers:
Bool -> Bool -> Bool -> Bool

2) Consider the following Haskell definition.

1 point

```
f x y z = not (x < y) == (y < z || z > 0)
```

If f x y 2 returns False, which of the following four input combinations are possible?

- x = 0, y = 0
- x = 0, y = 1
- x = 1, y = 0
- x = 1, y = 1

No, the answer is incorrect.
Score: 0

Accepted Answers:
x = 0, y = 1

3) Consider the following incomplete definition of the NOR function (NOR x y = True if and only if both x and y are False).

1 point

```
f3 True _ = False
f3 _ y    = ...
```

Which of the following is a correct replacement for the ... ?

- False
- not y
- True
- y

No, the answer is incorrect.
Score: 0

Accepted Answers:
not y

4) Consider the following recursive function definitions.

```
f 0 = 1
f n = g n n
```

```
g n 0 = 1
g n i = g n (i-1) + h i (n+1)
```

```
h 0 n = 1
h i n = h (i-1) (n-1) + h (i-1) (n+1)
```

What is the value of f 8?

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Numeric) 511

1 point

5) Consider the following recursive definition.

```
f n = g n 0
```

```
g n a
  | n == 0    = a
  | otherwise = g q (10*a + r)
  where
    q = div n 10
    r = mod n 10
```

What is the value of f 5578?

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Numeric) 8755

1 point