

NPTEL (https://swayam.gov.in/explorer?ncCode=NPTEL) » Introduction To Haskell Programming (course)



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## Course outline

How does an NPTEL online course work? ()

Week 1: Introduction ()

Week 2: Lists, Strings, Tuples ()

## Week 3: Assignment 3

The due date for submitting this assignment has passed.

Due on 2023-08-16, 23:59 IST.

## Assignment submitted on 2023-08-16, 21:26 IST

1) What is the value of the following expression?

drop 10 (takeWhile (>30) [0,4..90])

[32,36]

No, the answer is incorrect.

## Week 3: Rewriting, Polymorphism, Higher Order Functions on Lists ()

- Computation as rewriting (unit? unit=30&lesson=31)
- Polymorphism and higher-order functions (unit? unit=30&lesson=32)
- Map and filter (unit? unit=30&lesson=33)
- List comprehension (unit? unit=30&lesson=34)
- Folding through a list (unit? unit=30&lesson=35)
- More list functions: takeWhile, zipWith, zip (unit? unit=30&lesson=36)
- Week 3 Feedback Form: Introduction To Haskell Programming (unit? unit=30&lesson=37)
- Quiz: Week 3: Assignment 3 (assessment?name=94)

Score: 0

Accepted Answers: (Type: String) []

2) What is the value of the following expression?

take 5 (dropWhile (<30) [0,8..50])

[32,40,48]

Yes, the answer is correct.

Score: 0

Accepted Answers:

(Type: String) [32,40,48]

3) What is the type of the following function £?

$$f \times y z = map (not \cdot y) (zipWith (&&) \times z)$$

Your answer should have no intervening space.

f::[Bool]->(Bool->Bool)->[Bo

No, the answer is incorrect.

Score: 0

Accepted Answers:

(Type: String) [Bool]->(Bool->Bool)->[Bool]->[Bool]

4) What is the value of the following expression?

take 5 (foldl (y x -> [x]:y) [] [0..99])

[[99],[98],[97],[96],[95]]

1 point

0 points

1 point

Practice: Week 3:
Assignment 3 (Non
Graded) (assessment?
name=97)

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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Problem Solving Session - July 2023 () Yes, the answer is correct.

Score: 1

Accepted Answers:

(Type: String) [[99],[98],[97],[96],[95]]

5) What is the value of the following expression?

foldl (
$$\label{eq:1} 1 \times - 1 + (x + last 1) = [0] = [1..5]$$

[0,1,3,6,10,15]

Yes, the answer is correct.

Score: 1

Accepted Answers:

(Type: String) [0,1,3,6,10,15]

6) What is the position of (4,4) in the following infinite list?

$$[(i,k-i) \mid k \leftarrow [0,2..], i \leftarrow [0..k]]$$

Remember that list positions start with 0.

14

No, the answer is incorrect.

Score: 0

Accepted Answers: (Type: Numeric) 20

7) Where does (2,3) occur in the following infinite list?

$$[(i,k-i) \mid k \leftarrow [0,2..], i \leftarrow [0..k]]$$

O Does not occur

1 point

1 point

1 point

1 point

Position 10	
O Position 18	
O Position 5	
No, the answer is incorrect. Score: 0	
Accepted Answers:	
Does not occur	
8) Consider the following definition of the function $myRepeat$ .	1 point
myRepeat f 0 x = [x]	
myRepeat f n $x = f$ (tail (myRepeat f (n-1) $x$ ))	
What is the most general type for the argument f?	
O a -> a	
Oa -> [a]	
<pre>[a] -&gt; [a]</pre>	
○ [a] -> a	
Yes, the answer is correct. Score: 1	
Accepted Answers:	
[a] -> [a]	