edX   **DelftX:** FP101x Introduction to Functional Programming   **eli-hu** ▼

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Notice: the code samples and (possible) answers on this page are written using Haskell syntax. If you did the lab in one of the other languages, you have to manually translate the given code samples and (possible) answers to the language you have used to solve the programming exercises. Unfortunately, the edX tools do not allow us to have seperate question sheets for every language. We hope to improve this experience in the future but for now this is what we have to live with.

QUESTION 0 (1 point possible)

What is the result of `toDigits 12321` ?

- ○ [0, 1, 2, 3, 2, 1]
- ○ [1, 2, 3, 2, 1, 0]
- ○ [1, 2, 3, 2, 1]
- ○ The computation will not compile, will not terminate, or will throw an Exception

| Final Check | Save | *You have used 0 of 1 submissions*

QUESTION 1 (1 point possible)

What is the result of `toDigits (-531)` ?

- ○ []
- ○ [-5, 3, 1]
- ○ [-5, -3, -1]
- ○ The computation will not compile, will not terminate, or will throw an Exception

| Final Check | Save | *You have used 0 of 1 submissions*

QUESTION 2 (1 point possible)

What is the result of `toDigits 7.6` ?

- ○ The computation will not compile, will not terminate, or will throw an Exception
- ○ [7, 6]
- ○ [7]
- ○ []

| Final Check | Save | *You have used 0 of 1 submissions* |

QUESTION 3 (1 point possible)

What is the result of `toDigits 0`?

- ○ []
- ○ [0]
- ○ The computation will not compile, will not terminate, or will throw an Exception
- ○ "0"

| Final Check | Save | *You have used 0 of 1 submissions* |

QUESTION 4 (1 point possible)

What is the result of toDigits "123"?

- ○ []
- ○ [1, 2, 3]
- ○ ['1', '2', '3']
- ○ The computation will not compile, will not terminate, or will throw an Exception

| Final Check | Save | *You have used 0 of 1 submissions* |

QUESTION 5 (1 point possible)

What is the result of `toDigits 666`?

- ○ [6, 6, 6]
- ○ [6, 6]
- ○ [6]
- ○ The computation will not compile, will not terminate, or will throw an Exception

| Final Check | Save | *You have used 0 of 1 submissions* |

QUESTION 6 (1 point possible)

What is the result of `toDigitsRev 12321`?

○ [1, 2, 3, 2, 1]

○ [0, 1, 2, 3, 2, 1]

○ [1, 2, 3, 2, 1, 0]

○ The computation will not compile, will not terminate, or will throw an Exception

Final Check	Save	*You have used 0 of 1 submissions*

QUESTION 7 (1 point possible)

What is the result of `toDigitsRev (-531)` ?

○ The computation will not compile, will not terminate, or will throw an Exception

○ []

○ [1, 3, -5]

○ [-1, -3, -5]

Final Check	Save	*You have used 0 of 1 submissions*

QUESTION 8 (1 point possible)

What is the result of `toDigitsRev 7.6` ?

○ [6, 7]

○ [6]

○ []

○ The computation will not compile, will not terminate, or will throw an Exception

Final Check	Save	*You have used 0 of 1 submissions*

QUESTION 9 (1 point possible)

What is the result of `toDigitsRev 0` ?

○ []

○ The computation will not compile, will not terminate, or will throw an Exception

○ [0]

○ ['0']

Final Check	Save	*You have used 0 of 1 submissions*

QUESTION 10 (1 point possible)

What is the result of toDigitsRev "123"

- ○ The computation will not compile, will not terminate, or will throw an Exception
- ○ [3, 2, 1]
- ○ ['3', '2', '1']
- ○ []

Help

[Final Check]   [Save]   *You have used 0 of 1 submissions*

QUESTION 11 (1 point possible)

What is the result of `toDigitsRev 666` ?

- ○ [6]
- ○ [6, 6]
- ○ [6, 6, 6]
- ○ The computation will not compile, will not terminate, or will throw an Exception

[Final Check]   [Save]   *You have used 0 of 1 submissions*

QUESTION 12 (1 point possible)

What is the result of `doubleSecond []` ?

- ○ The computation will not compile, will not terminate, or will throw an Exception
- ○ ""
- ○ []
- ○ 0

[Final Check]   [Save]   *You have used 0 of 1 submissions*

QUESTION 13 (1 point possible)

What is the result of `doubleSecond [5]` ?

- ○ [5]
- ○ [10]
- ○ [1, 0]
- ○ 5

| Final Check | Save | *You have used 0 of 1 submissions* |

QUESTION 14 (1 point possible)

What is the result of `doubleSecond [2, 5]` ?

- ○ [4, 5]
- ○ [2, 10]
- ○ [4, 10]
- ○ [2, 1, 0]

| Final Check | Save | *You have used 0 of 1 submissions* |

QUESTION 15 (1 point possible)

What is the result of `doubleSecond [1..]` ?

- ○ [2, 2, 6, 4, ...]
- ○ [2, 4, 6, 8, ...]
- ○ [1, 2, 3, 4, ...]
- ○ [1, 4, 3, 8, ...]

| Final Check | Save | *You have used 0 of 1 submissions* |

QUESTION 16 (1 point possible)

What is the result of `doubleSecond [1, 0, 1, 0, 1]` ?

- ○ [1, 0, 1, 0, 1]
- ○ [2, 0, 2, 0, 2]
- ○ [2, 1, 2, 1, 2]
- ○ The computation will not compile, will not terminate, or will throw an Exception

| Final Check | Save | *You have used 0 of 1 submissions* |

QUESTION 17 (1 point possible)

For this question, fill in the correct result. If the computation will not compile, will not terminate, or will throw an Exception, type in: BOTTOM

What is the result of sumDigits []

Help

Final Check   Save   *You have used 0 of 1 submissions*

QUESTION 18 (1 point possible)

For this question, fill in the correct result. If the computation will not compile, will not terminate, or will throw an Exception, type in: BOTTOM

What is the result of sumDigits [-12, 12]

Final Check   Save   *You have used 0 of 1 submissions*

QUESTION 19 (1 point possible)
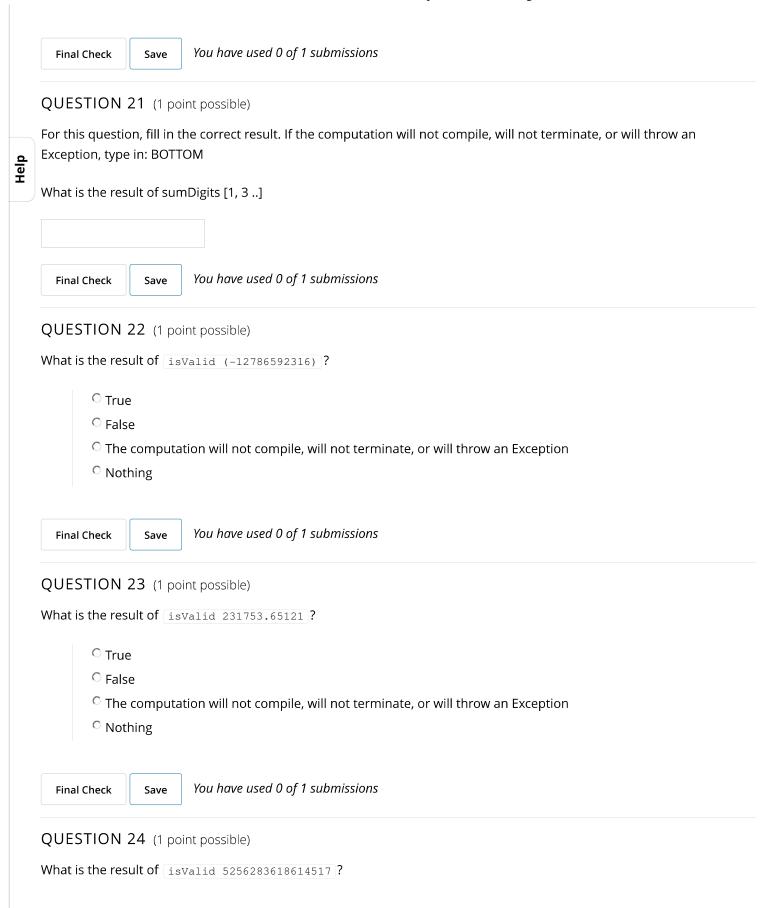
For this question, fill in the correct result. If the computation will not compile, will not terminate, or will throw an Exception, type in: BOTTOM

What is the result of sumDigits [0, 0, 0]

Final Check   Save   *You have used 0 of 1 submissions*

QUESTION 20 (1 point possible)

For this question, fill in the correct result. If the computation will not compile, will not terminate, or will throw an Exception, type in: BOTTOM

What is the result of sumDigits [6, 66, 666]

Final Check   **Save**   *You have used 0 of 1 submissions*

QUESTION 21 (1 point possible)

For this question, fill in the correct result. If the computation will not compile, will not terminate, or will throw an Exception, type in: BOTTOM

What is the result of sumDigits [1, 3 ..]

[   ]

Final Check   **Save**   *You have used 0 of 1 submissions*

QUESTION 22 (1 point possible)

What is the result of `isValid (-12786592316)` ?

- ○ True
- ○ False
- ○ The computation will not compile, will not terminate, or will throw an Exception
- ○ Nothing

Final Check   **Save**   *You have used 0 of 1 submissions*

QUESTION 23 (1 point possible)

What is the result of `isValid 231753.65121` ?

- ○ True
- ○ False
- ○ The computation will not compile, will not terminate, or will throw an Exception
- ○ Nothing

Final Check   **Save**   *You have used 0 of 1 submissions*

QUESTION 24 (1 point possible)

What is the result of `isValid 5256283618614517` ?

○ True

○ False

○ The computation will not compile, will not terminate, or will throw an Exception

○ Nothing

Help

| Final Check | Save | *You have used 0 of 1 submissions*

QUESTION 25 (1 point possible)

What is the result of `isValid 4556945538735694` ?

○ True

○ False

○ The computation will not compile, will not terminate, or will throw an Exception

○ Nothing

| Final Check | Save | *You have used 0 of 1 submissions*

QUESTION 26 (1 point possible)

What is the result of `isValid 0000000000000000` ?

○ True

○ False

○ The computation will not compile, will not terminate, or will throw an Exception

○ Nothing

| Final Check | Save | *You have used 0 of 1 submissions*

QUESTION 27 (1 point possible)

The template for this lab provides the function `numValid` , together with a list of credit card numbers `creditcards` .

What is the result of: `numValid creditcards` ?

Final Check   Save   *You have used 0 of 1 submissions*

BONUS EXERCISE

Which of the provided languages did you use to solve this lab?

Note that this question is not graded.

- ○ Haskell
- ○ Frege
- ○ F#
- ○ Groovy
- ○ Java
- ○ Scala

Final Check   Save   *You have used 0 of 1 submissions*

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