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Bewertung	87,92 von 100,00

Frage 1

Vollständig

Nicht bewertet

By selecting "I confirm", I hereby declare under oath that I will work on this examination on my own without any help or any third-party assistance.

By selecting "I confirm", I understand that noncompliance results in invalidation of the assessment, whereby the invalidated examination will be added to the total number of retakes and noncompliance may result in further legal action.

- ☒ a. I confirm
- ☐ b. I do not confirm

Die richtige Antwort ist: I confirm

Frage 2

Richtig

Erreichte Punkte 1,00 von 1,00

Assume you have a package `mypackage` with a Python file `utilities.py` that contains a function `my_func()`. Which of the following code snippets are valid Python to import and use this function?

Note: You can assume that your script is in the same directory as the package `mypackage` and that there is an empty `__init__.py` file in the package.

- ☒ a.

```
from mypackage.utilities import my_func
my_func()
```

 ✓
- ☒ b.

```
import mypackage.utilities as util
util.my_func()
```

 ✓
- ☒ c.

```
import mypackage.utilities
mypackage.utilities.my_func()
```

 ✓
- ☐ d.

```
import mypackage.my_func
my_func()
```
- ☐ e.

```
import mypackage.utilities.my_func
my_func()
```

Die richtigen Antworten sind:

```
import mypackage.utilities
mypackage.utilities.my_func()
```

```
from mypackage.utilities import my_func
my_func()
```

```
import mypackage.utilities as util
util.my_func()
```

Frage 3

Richtig

Erreichte Punkte 1,00 von 1,00

Assume that you have some function and within this function some code that might throw an exception. What can be done in this case?

Note: It does not matter whether the answers are actually useful (this cannot even be stated without the concrete use case).

- ☒ a. The exception can be ignored. The function is then immediately exited with the exception still being raised. ✓
- ☒ b. The exception itself can be ignored in a `try-finally`-block (without `except` clause), but the `finally` clause allows to perform some final actions before the function is exited with the exception still being raised. ✓
- ☐ c. The exception must be caught in the function because otherwise, the program cannot be compiled.
- ☒ d. The exception can be caught in a matching `try-except`-block so that the function may continue normally. ✓

Die richtigen Antworten sind: The exception can be caught in a matching `try-except`-block so that the function may continue normally., The exception can be ignored. The function is then immediately exited with the exception still being raised., The exception itself can be ignored in a `try-finally`-block (without `except` clause), but the `finally` clause allows to perform some final actions before the function is exited with the exception still being raised.

Frage 4

Richtig

Erreichte Punkte 1,00 von 1,00

Which of the following are typically parts of classes in Python?

- ☐ a. Modules
- ☒ b. Attributes ✓
- ☐ c. Packages
- ☒ d. Methods ✓

Die richtigen Antworten sind: Methods, Attributes

Frage 5

Richtig

Erreichte Punkte 1,00 von 1,00

Which of the following statements are correct with respect to Python variables/names?

- ☐ a. The data type is associated with the variable and determines which objects can be stored.
- ☒ b. The data type is associated with the object rather than the variable. ✓
- ☐ c. A variable directly stores the values of primitive data types (int, float, bool) and holds a reference to an object of complex data types (list, custom classes, etc.).
- ☒ d. A variable always holds a reference to an object. ✓

Die richtigen Antworten sind: A variable always holds a reference to an object., The data type is associated with the object rather than the variable.

Frage 6

Richtig

Erreichte Punkte 1,00 von 1,00

Which output, if any, is generated by the following code?

```
x = 12
if x >= 5:
    print("First output!")
elif x >= 10:
    print("Second output!")
elif x >= 15:
    print("Third output!")
else:
    print("Last output!")
```

- ☐ a. No output is generated.
- ☐ b. Last output!
- ☒ c. First output! ✓
- ☐ d. Third output!
- ☐ e. Second output!
- ☐ f. First output!
Second output!

Die richtige Antwort ist: First output!

Frage 7

Richtig

Erreichte Punkte 1,00 von 1,00

The code

```
x = 10
while x > 0:
    x = x + 1
```

will ...

- ☐ a. ... not do anything because `x > 0` is `True` and, thus, the `while`-loop is not entered.
- ☒ b. ... result in an endless/infinite loop. ✓
- ☒ c. ... increment `x` by 1 in every loop iteration as long as `x` is greater than 0. ✓
- ☐ d. ... fail because `x > 0` cannot be used as loop condition.

Die richtigen Antworten sind: ... increment `x` by 1 in every loop iteration as long as `x` is greater than 0., ... result in an endless/infinite loop.

Frage 8

Richtig

Erreichte Punkte 1,00 von 1,00

Which of the following Python data structures are mutable?

- ☒ a. List ✓
- ☒ b. Dictionary ✓
- ☐ c. Tuple
- ☒ d. Set ✓

Die richtigen Antworten sind: List, Set, Dictionary

Frage 9

Richtig

Erreichte Punkte 1,00 von 1,00

A Python set ...

- ☒ a. ... can only contain unique elements. ✓
- ☐ b. ... is an ordered collection of elements.
- ☐ c. ... can contain duplicate elements.
- ☒ d. ... is an unordered collection of elements. ✓

Die richtigen Antworten sind: ... is an unordered collection of elements., ... can only contain unique elements.

Frage 10

Teilweise richtig

Erreichte Punkte 0,75 von 1,00

Select all valid (i.e., no error) indexing and slicing code snippets for some list `my_list` of length 5.

- ☐ a. `my_list[:6]`
- ☒ b. `my_list[::-2]` ✓
- ☒ c. `my_list[-5]` ✓
- ☒ d. `my_list[:5]` ✓
- ☐ e. `my_list[5]`
- ☐ f. `my_list[0.5:2.5]`

Die richtigen Antworten sind:

`my_list[-5]`

`my_list[:5]`

`my_list[:6]`

`my_list[::-2]`

Frage 11

Richtig

Erreichte Punkte 1,00 von 1,00

What is the difference between object/instance attributes and class attributes?

- ☐ a. There is no difference, object attributes and class attributes are synonyms.
- ☐ b. Object attributes belong to the object and exist for each such object. Class attributes belong to the class and are copied for every created object.
- ☐ c. Object attributes belong to the object but exist only once and are shared across all objects. Class attributes belong to the class and exist only once.
- ☒ d. Object attributes belong to the object and exist for each such object. Class attributes belong to the class and exist only once. ✓

Die richtige Antwort ist: Object attributes belong to the object and exist for each such object. Class attributes belong to the class and exist only once.

Frage 12

Richtig

Erreichte Punkte 1,00 von 1,00

Given a list `my_list` of length 15, what does the following code do?

```
my_list[4::3]
```

- ☒ a. It returns a list of every third element starting from index 4 up to the end of the list. ✓
- ☐ b. It returns a list of every element starting from index 4 up to index 3.
- ☐ c. It returns a list of every element starting from index 3 up to index 4.
- ☐ d. It returns a list of every fourth element starting from index 3 up to the end of the list.

Die richtige Antwort ist: It returns a list of every third element starting from index 4 up to the end of the list.

Frage 13

Falsch

Erreichte Punkte 0,00 von 1,00

Which of the following statements are correct when converting an `int` to a `float` in Python?

- ☐ a. Since integer numbers are unbound in Python, we might run into conversion problems if the number does not fit into a floating point number.
- ☐ b. Integer numbers cannot be converted to floating point numbers.
- ☒ c. When converting from `int` to `float`, there is never a loss of information. ✗
- ☐ d. When converting from `int` to `float`, there might be a loss of information.

Die richtigen Antworten sind: Since integer numbers are unbound in Python, we might run into conversion problems if the number does not fit into a floating point number., When converting from `int` to `float`, there might be a loss of information.

Frage 14

Teilweise richtig

Erreichte Punkte 0,75 von 1,00

Which of the following code snippets can be used to copy the contents of some list `my_list` into a new list `copied_list`?

- ☒ a. `copied_list = my_list[:]` ✓
- ☐ b. `copied_list = list(my_list)`
- ☒ c.

```
copied_list = []
for x in my_list:
    copied_list.append(x)
```

 ✓
- ☐ d. `copied_list = my_list`
- ☒ e. `copied_list = [x for x in my_list]` ✓

Die richtigen Antworten sind:

```
copied_list = [x for x in my_list]
```

```
copied_list = my_list[:]
```

```
copied_list = []
for x in my_list:
    copied_list.append(x)
```

```
copied_list = list(my_list)
```

Frage 15

Richtig

Erreichte Punkte 1,00 von 1,00

Consider the following function:

```
def add(a: int, b: int) -> int:
    return a + b
```

Which of the following statements are correct?

- ☐ a. Passing two floating point numbers for `a` and `b` will crash the program.
- ☐ b. The function only works with integer numbers.
- ☒ c. The type hints indicate that the function should only be used with integer numbers. ✓
- ☒ d. If passing two integer numbers for `a` and `b`, the return type is indicated to be an integer number. ✓

Die richtigen Antworten sind: If passing two integer numbers for `a` and `b`, the return type is indicated to be an integer number., The type hints indicate that the function should only be used with integer numbers.

Frage 16

Richtig

Erreichte Punkte 1,00 von 1,00

What does the following code do?

```
with open("my_file.txt", "r") as f:  
    # some code
```

- ☒ a. It opens the specified file in read mode and stores the file handle in `f`. ✓
- ☐ b. It opens the specified file in read mode and stores the file content in `f`.
- ☐ c. It opens the specified file in write mode and stores the file content in `f`.
- ☐ d. It opens the specified file in write mode and stores the file handle in `f`.

Die richtige Antwort ist: It opens the specified file in read mode and stores the file handle in `f`.

Frage 17

Falsch

Erreichte Punkte 0,00 von 1,00

Given a function

```
def fun(a, b, *args, c, **kwargs):  
    # some code
```

what would `args` and `kwargs` contain after

```
my_list = [1, 2]  
my_dict = {"c": 3}  
fun(0, *mylist, **mydict)
```

?

- ☐ a. `args = (0, 1, 2)` and `kwargs = {"c": 3}`
- ☐ b. `args = (2,)` and `kwargs = {"c": 3}`
- ☐ c. `args = (1, 2)` and `kwargs = {}`
- ☐ d. `args = (0, 1, 2)` and `kwargs = {}`
- ☐ e. `args = (2,)` and `kwargs = {}`
- ☒ f. `args = (1, 2)` and `kwargs = {"c": 3}` ✗

Die richtige Antwort ist: `args = (2,)` and `kwargs = {}`

Frage 18

Richtig

Erreichte Punkte 1,00 von 1,00

Given the following class `Point` that represents a two-dimensional point, which of the following implementations of the special method `__mul__(self, other)` should be used to multiply another `Point` object?

```
class Point:
```

```
    def __init__(self, x, y):  
        self.x = x  
        self.y = y
```

- ☐ a.

```
def __mul__(self, other):  
    return self.x * other.x, self.y * other.y
```
- ☐ b.

```
def __mul__(self, other):  
    if hasattr(other, "x") and hasattr(other, "y"):  
        return Point(self.x * other.x, self.y * other.y)
```
- ☐ c.

```
def __mul__(self, other):  
    self.x *= other.x  
    self.y *= other.y
```
- ☐ d.

```
def __mul__(self, other):  
    return Point(self.x * other.x, self.y * other.y)
```
- ☒ e.

```
def __mul__(self, other):  
    if isinstance(other, Point):  
        return Point(self.x * other.x, self.y * other.y)  
    return NotImplemented
```

 ✓

Die richtige Antwort ist:

```
def __mul__(self, other):  
    if isinstance(other, Point):  
        return Point(self.x * other.x, self.y * other.y)  
    return NotImplemented
```

Frage 19

Richtig

Erreichte Punkte 1,00 von 1,00

Consider the code

```
def fun(n):  
    if n == 0:  
        return 1  
    return n * fun(n - 1)
```

What is the result for the function call `fun(3)`?

- ☐ a. 3
- ☐ b. 9
- ☒ c. 6 ✓
- ☐ d. There is no result, since it leads to an endless recursion.
- ☐ e. 27

Die richtige Antwort ist: 6

Frage 20

Richtig

Erreichte Punkte 1,00 von 1,00

After executing the following code, which of the following statements are correct?

```
class Animal:  
    def __init__(self, name):  
        self.name = name  
  
a1 = Animal("Gabe")  
a2 = Animal("Judy")  
a3 = a1  
a2.name = "Bork"  
a1.name = "Bork"
```

- ☐ a. There are one `Animal` object stored in memory.
- ☐ b. There are three `Animal` objects stored in memory.
- ☐ c. `a3.name` equals "Gabe".
- ☒ d. `a3.name` equals "Bork". ✓
- ☒ e. There are two `Animal` objects stored in memory. ✓

Die richtigen Antworten sind: There are two `Animal` objects stored in memory., `a3.name` equals "Bork".

Frage 21

Richtig

Erreichte Punkte 1,00 von 1,00

Which of the following statements are true regarding the data type `int`?

- ☐ a. It's assigning a character value to each bit pattern.
- ☐ b. It's using a representation to approximate numerical values and is not (necessarily) precise.
- ☐ c. It's using a representation to approximate numerical values and is precise.
- ☒ d. It's precise and stores integral numbers. ✓

Die richtige Antwort ist: It's precise and stores integral numbers.

Frage 22

Richtig

Erreichte Punkte 1,00 von 1,00

Which of the following statements are correct regarding NumPy arrays?

- ☐ a. Elements in a NumPy array can be of mixed data types.
- ☐ b. A NumPy array of size `n` is the same as a Python list of size `n`.
- ☐ c. NumPy arrays are dynamically sized (their size can be changed arbitrarily).
- ☒ d. NumPy arrays can be multi-dimensional. ✓

Die richtige Antwort ist: NumPy arrays can be multi-dimensional.

Frage 23

Richtig

Erreichte Punkte 1,00 von 1,00

Consider the following code:

```
def f(x):  
    try:  
        g(x)  
        print("f1")  
    except ValueError:  
        print("f2")  
    finally:  
        print("f3")  
    print("f4")  
  
def g(x):  
    if x < 0:  
        raise ValueError  
    print("g1")  
    if x > 10:  
        raise TypeError  
    print("g2")
```

What is the output when calling `f(5)`?

Note: Errors in the answers below indicate that the function call ended with this error currently being raised.

- ☒ a. g1 ✓
g2
f1
f3
f4
- ☐ b. g1
g2
f4
- ☐ c. f3
f4
- ☐ d. f4
- ☐ e. g1
g2
ValueError

Die richtige Antwort ist: g1

g2
f1
f3
f4

Frage 24

Richtig

Erreichte Punkte 1,00 von 1,00

What is the content of `x` after executing the following code?

```
def generate_str_numbers(n):  
    for i in range(n):  
        yield str(i)  
  
x = generate_str_numbers(3)
```

- ☐ a. "3"
- ☐ b. "0"
- ☐ c. ["0", "1", "2"]
- ☒ d. A generator iterator object. ✓
- ☐ e. ("0", "1", "2")

Die richtige Antwort ist: A generator iterator object.

Frage 25

Richtig

Erreichte Punkte 1,00 von 1,00

Which output, if any, is generated by the following code?

```
for i in range(6):  
    if i == 1:  
        continue  
    elif i == 5:  
        break  
    print(i)
```

- ☐ a. 0
- ☐ b. 2
3
4
- ☒ c. 0 ✓
2
3
4
- ☐ d. 1
- ☐ e. 0
1
- ☐ f. 1
5
- ☐ g. 0
1
2
3
4
- ☐ h. No output is generated.

Die richtige Antwort ist: 0

2
3
4

Frage 26

Richtig

Erreichte Punkte 1,00 von 1,00

Select all values of a for which the boolean expression evaluates to **True**!

$(a > 5 \text{ and } a < 10) \text{ or } a < -7$

- ☒ a. $a = 6$ ✓
- ☐ b. $a = 0$
- ☒ c. $a = -100$ ✓
- ☐ d. $a = 30$
- ☐ e. $a = 5$

Die richtigen Antworten sind: $a = 6$, $a = -100$

Frage 27

Falsch

Erreichte Punkte 0,00 von 1,00

What is the output when executing the following code?

```
class Animal:
    def eat(self):
        print("Animal eats")

class Fish(Animal):
    def eat(self):
        print("Fish eats")

class Shark(Fish):
    pass

for a in [Animal(), Fish(), Shark()]:
    a.eat()
```

- ☐ a. Animal eats
Animal eats
Animal eats
- ☐ b. Animal eats
Fish eats
Shark eats
- ☐ c. Animal eats
Fish eats
Fish eats
- ☐ d. Animal eats
Fish eats
- ☐ e. There will be an error because class **Shark** does not have a method **eat**.
- ☒ f. Animal eats ✖
Fish eats
Animal eats

Die richtige Antwort ist: Animal eats

Fish eats

Fish eats

Frage 28

Richtig

Erreichte Punkte 1,00 von 1,00

How many elements does a NumPy array with shape (2, 5, 1) hold?

- ☒ a. 10 ✓
- ☐ b. 8
- ☐ c. 1
- ☐ d. 251
- ☐ e. 2
- ☐ f. 5

Die richtige Antwort ist: 10

Frage 29

Richtig

Erreichte Punkte 1,00 von 1,00

What is the result of the following code?

```
my_dict = {"k1": 1, "k2": 2}
my_dict["k3"] = "hello"
```

- ☐ a. A **TypeError** is raised.
- ☐ b. The content of `my_dict` is overwritten with a new dictionary that contains the key "k3" and the value "hello".
- ☒ c. A new entry with the key "k3" and the value "hello" is added to `my_dict`. ✓
- ☐ d. A **KeyError** is raised.

Die richtige Antwort ist: A new entry with the key "k3" and the value "hello" is added to `my_dict`.

Frage 30

Richtig

Erreichte Punkte 1,00 von 1,00

Which of the following statements are correct after executing the following code?

```
a = 100  
b = a  
a = 50
```

- ☐ a. `a` and `b` refer to the same object.
- ☒ b. `b` contains the integer object 100. ✓
- ☐ c. The integer object 100 is stored two times in memory: Once for `a` and another time for `b`.
- ☐ d. `b` contains the integer object 50.

Die richtige Antwort ist: `b` contains the integer object 100.

Frage 31

Richtig

Erreichte Punkte 1,00 von 1,00

Which of the following statements are true regarding the `is` keyword and the `==` operator?

- ☐ a. If `x` and `y` refer to the same object, the expression `x == y` always returns `False`.
- ☒ b. `is` is used for comparing object identities (whether two names refer to the same object). ✓
- ☐ c. If `x` and `y` refer to the same object, the expression `x is y` always returns `False`.
- ☒ d. `==` is used for checking whether two objects are equal. ✓

Die richtigen Antworten sind: `is` is used for comparing object identities (whether two names refer to the same object), `==` is used for checking whether two objects are equal.

Frage 32

Falsch

Erreichte Punkte 0,00 von 1,00

Select the correct function implementations that fulfill the following task:

Write a function that takes a list of integers as input. All negative numbers in this list are replaced with their positive values. The function does not return anything, i.e., the passed list must be changed directly (in-place).

Note: You can assume correct arguments.

- ☒ a.

```
def abs_list(some_list):  
    for i, v in enumerate(some_list):  
        if v < 0:  
            some_list[i] = -v
```

 ✓
- ☒ b.

```
def abs_list(some_list):  
    some_list = [-v if v < 0 else v for v in some_list]
```

 ✗
- ☒ c.

```
def abs_list(some_list):  
    for i in range(len(some_list)):  
        if some_list[i] < 0:  
            some_list[i] = -some_list[i]
```

 ✓
- ☐ d.

```
def abs_list(some_list):  
    some_list[:] = [-v if v < 0 else v for v in some_list]
```

Die richtigen Antworten sind:

```
def abs_list(some_list):  
    for i in range(len(some_list)):  
        if some_list[i] < 0:  
            some_list[i] = -some_list[i]
```

```
def abs_list(some_list):  
    for i, v in enumerate(some_list):  
        if v < 0:  
            some_list[i] = -v
```

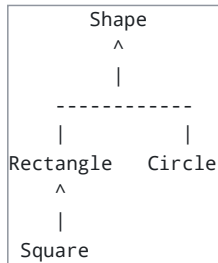
```
def abs_list(some_list):  
    some_list[:] = [-v if v < 0 else v for v in some_list]
```

Frage 33

Richtig

Erreichte Punkte 1,00 von 1,00

Consider the following class inheritance hierarchy (classes on top indicate base classes/superclasses):



Assume that you have instances of each class: `my_shape`, `my_rectangle`, `my_square`, `my_circle`. Which of the following boolean expressions evaluate to `True`?

- ☒ a. `isinstance(my_circle, Circle)` ✓
- ☐ b. `isinstance(my_rectangle, Square)`
- ☐ c. `isinstance(my_square, Circle)`
- ☐ d. `isinstance(my_shape, Rectangle)`
- ☒ e. `isinstance(my_square, Shape)` ✓

Die richtigen Antworten sind:

`isinstance(my_square, Shape)``isinstance(my_circle, Circle)`**Frage 34**

Teilweise richtig

Erreichte Punkte 0,67 von 1,00

Which of the following statements are correct regarding Python strings?

- ☒ a. A Python string can be empty. ✓
- ☐ b. A Python string is a piece of clothing which must be worn to write Python code.
- ☒ c. A Python string is a sequence of characters. ✓
- ☐ d. Python strings are closely related to the concept of character encoding/decoding.

Die richtigen Antworten sind: A Python string is a sequence of characters., A Python string can be empty., Python strings are closely related to the concept of character encoding/decoding.

Frage 35

Richtig

Erreichte Punkte 1,00 von 1,00

Assume that `my_arr` is a NumPy array with shape `(2, 3, 4, 5, 6)`. When executing the code `partial = my_arr[:, 0, 0]`, what would the shape of the resulting NumPy array `partial` be?

- ☐ a. `(2, 3, 4)`
- ☐ b. `(2, 0, 0, 5, 6)`
- ☐ c. `(2, 3, 4, 5, 6, 0, 0)`
- ☐ d. `(4, 5, 6)`
- ☒ e. `(2, 5, 6)` ✓

Die richtige Antwort ist:

`(2, 5, 6)`

Frage 36

Richtig

Erreichte Punkte 1,00 von 1,00

Which of the following code snippets produce the same output as the following code?

```
i = 0
while i < 3:
    print(i)
    i += 1
```

- ☐ a.

```
i = 0
try:
    print(i)
finally:
    if i < 3:
        i += 1
```
- ☒ b.

```
for i in range(3):
    print(i)
```

 ✓
- ☐ c.

```
i = 0
if i < 3:
    print(i)
    i += 1
```
- ☒ d.

```
i = 0
while True:
    print(i)
    i += 1
    if i == 3:
        break
```

 ✓

Die richtigen Antworten sind:

```
for i in range(3):
    print(i)
```

```
i = 0
while True:
    print(i)
    i += 1
    if i == 3:
        break
```

Frage 37

Richtig

Erreichte Punkte 1,00 von 1,00

Consider the following code and assume that function `a_function()` raises a `ValueError`:

```
try:
    a_function()
    raise TypeError
except ValueError:
    print("there was an exception!")
finally:
    print("done!")
```

Which of the following statements are correct?

Note: The order of the answers can be ignored.

- ☒ a. "done!" is printed. ✓
- ☒ b. The `ValueError` is caught and the program continues normally. ✓
- ☐ c. The `ValueError` is not caught.
- ☐ d. The `ValueError` is caught and a `TypeError` is then raised afterwards.
- ☒ e. "there was an exception!" is printed. ✓
- ☐ f. Nothing is printed.

Die richtigen Antworten sind: "there was an exception!" is printed., "done!" is printed., The `ValueError` is caught and the program continues normally.

Frage 38

Richtig

Erreichte Punkte 1,00 von 1,00

Given a function

```
def my_func(a, b=1, *args):  
    # some code
```

which of the following invocations are valid (i.e., no error)?

- ☐ a. `my_func()`
- ☒ b. `my_func(100, 200, 300)` ✓
- ☐ c. `my_func(b=200)`
- ☒ d. `my_func(100)` ✓
- ☒ e. `my_func(100, 200)` ✓
- ☐ f. `my_func(a=100, c=300)`
- ☒ g. `my_func(a=100)` ✓

Die richtigen Antworten sind:

`my_func(100)``,`
`my_func(100, 200)``,`
`my_func(100, 200, 300)``,`
`my_func(a=100)`

Frage 39

Richtig

Erreichte Punkte 1,00 von 1,00

Consider a NumPy array with shape (2, 5). Which of the following shapes are valid (i.e., no error) when reshaping this array?

- ☒ a. (-1, 10) ✓
- ☐ b. (2, 5, 10)
- ☒ c. (10,) ✓
- ☐ d. (7,)
- ☒ e. (10, 1) ✓
- ☒ f. (5, 2) ✓
- ☒ g. (1, 2, 5) ✓

Die richtigen Antworten sind:

(5, 2)

,

(1, 2, 5)

,

(10,)

,

(10, 1)

,

(-1, 10)

Frage 40

Richtig

Erreichte Punkte 1,00 von 1,00

What happens if you run the following code?

```
a = (1, 2, 3)
a[0] = 0
```

- ☐ a. a will refer to the same tuple but the tuple's first element is set to 0.
- ☐ b. a will be automatically converted to a list before the assignment operation.
- ☐ c. a will contain a new tuple with the value (0, 2, 3).
- ☒ d. The code will fail since tuples cannot be changed. ✓

Die richtige Antwort ist: The code will fail since tuples cannot be changed.

Frage 41

Richtig

Erreichte Punkte 1,00 von 1,00

Given the following code that represents a person, choose the best implementation of the subclass **Student**!

```
class Person:
    def __init__(self, name):
        self.name = name
```

☐ a.

```
class Student(Person):
    def __init__(self, name, study_id):
        self.name = name
        self.study_id = study_id
```

☐ b.

```
class Student:
    def __init__(self, name, study_id):
        Person.super().__init__(name)
        self.study_id = study_id
```

☐ c.

```
class Student:
    def __init__(self, name, study_id):
        self.person = Person(name)
        self.study_id = study_id
```

☒ d.

```
class Student(Person):
    def __init__(self, name, study_id):
        super().__init__(name)
        self.study_id = study_id
```

 ✓

Die richtige Antwort ist:

```
class Student(Person):
    def __init__(self, name, study_id):
        super().__init__(name)
        self.study_id = study_id
```