

Answer 1

Since a is not 0 it called function (75 % 30, 30)

This become func(15, 30)

Since 'a' is not 0 again, it called func(30 % 15, 15)

This become function(0,15)

As a is 0, the func returns 15.

Code snippet is 15

Answer 2

The provided code creates a tuple of numbers, sorts them, filters out the even numbers using a lambda function, and prints the type of the resulting object. However, the `filter` function returns an iterable, so to see the filtered numbers, you might want to convert `even_numbers` to a list.

```
```python
numbers = (4, 7, 19, 2, 89, 45, 72, 22)

sorted_numbers = sorted(numbers)

even = lambda a: a % 2 == 0

even_numbers = list(filter(even, sorted_numbers))

print(type(even_numbers))
```
```

Answer 3

*args allow a function to take any number of positional arguments. The parameters passed to the addition function are stored in [a tuple](#)

Answer 4

```
set1 = {14, 3, 55}
```

```
set2 = {82, 49, 62}
```

```
set3={99,22,17}
```

```
print(len(set1 + set2 + set3))
```

Error

Actually code is give me error but editing is (. union) add the code and error is clear

Answer 5

In Python, the raise keyword is used to raise exceptions. It is typically followed by an exception class or instance.

Answer 6

datetime is a single module. This means that it is not two separate data types. You can import this datetime module in such a way that they work with dates and times. datetime is a built-in Python module.

Answer 7

$$(7 + 5) = 12$$

$$(1 + 1) = 2$$

$$4^{**}3 + 12^{**}2$$

$$4^{**}3 = 64$$

$$12^{**}2 = 144$$

$$64 + 144 = 208$$

Answer 8

The strftime function in Python is used to convert a date object into a string representing the date, controlled by format codes

Example

```
import datetime
```

```
date = datetime.date(2024, 4, 12) # Example date
```

```
time = datetime.time(10, 30) # Example time
```

```
combined_datetime = datetime.datetime.combine(date, time)

print(combined_datetime.time())
```

Answer 9

A Python tuple is an **immutable** data type, meaning its elements cannot be changed after the tuple is created.

Answer 10

The range() function in Python is a built-in function that returns a range object representing a sequence of numbers. It is commonly used for iterating over a sequence of numbers in a for loop

Answer 11

Answer: C. Lambda function

A lambda function in Python is an anonymous function that can have any number of input parameters but can only have one expression. It is defined using the lambda keyword and doesn't have a name like a regular function.

Answer 12

Answer: C. Both A and B

The pickle module in Python is used for serializing and deserializing Python object structures. Serializing refers to the process of converting a Python object into a byte stream, and deserializing is the reverse process of reconstructing the original object from a byte stream

Answer 13

Answer: B. dump() method

The dump() method is part of the pickle module in Python and is used to convert Python objects into a binary format and write them to a file. This is commonly used for serialization, especially when saving data structures to a file in a binary format.

Answer 14

Among the options provided, the method used to unpickle data from a binary file is:

c) pickle.load()

Answer 15

Answer: D. All of the mentioned above

A text file can contain a combination of alphabets, numbers, and special symbols. It is a type of file that stores plain text information without any formatting or binary data.

Answer 17

Answer : d) captains = {}

This line of code creates an empty dictionary named captains. The {} syntax is used to denote an empty dictionary in Python.

Answer 16

Answer: d) both a and b

Both of these options will produce the specified output: Enterprise Picard, Voyager Janeway Defiant Sisko

Answer 18

Answer: b)

```
captains["Enterprise"] = "Picard"
```

```
captains["Voyager"] = "Janeway"
```

```
captains["Defiant"] = "Sisko"
```

Answer 19

Answer: b) for ship, captain in captains.items():

```
print(f"The {ship} is captained by {captain}.")
```

Output: The Enterprise is captained by Picard. The Voyager is captained by Janeway. The Defiant is captained by Sisko. The Discovery is captained by unknown.

Answer 20

Answer: `c) del captains["Discovery"]`

This statement will remove the entry for the key "Discovery" from the captains dictionary

Thank You Sir...