

Course Name	ITD 2313 – Script Programming
Instructor	Andy Tripp
Student Name	Timothy Obinda
Due date	10/19/2025
Grade	Put grade earned here
Grading Comments	Put instructor comments here

## INSTRUCTIONS FOR THE EXERCISE

You should always read the instructions in full. It is best to do a full read through before starting the assignment. Each screen shot needs to be appropriately labeled.

In these instruction, you are given information to execute specific examples in the text. You are given the Section, Subsection and a page number to identify a set of steps. On each page listed, there will be 1 or more numbered tasks to perform. These numbered tasks will be what you are to type in, execute and then grab the screen shots of. Those screen shots will go into your submission document.

Some advice, copy this instruction set into your submission document and then put the screen shots under each numbered task. Each individual book page in the instructions should be in a different screen shot. For any single book page, you may have all the numbered tasks on that page be in a single screen shot.

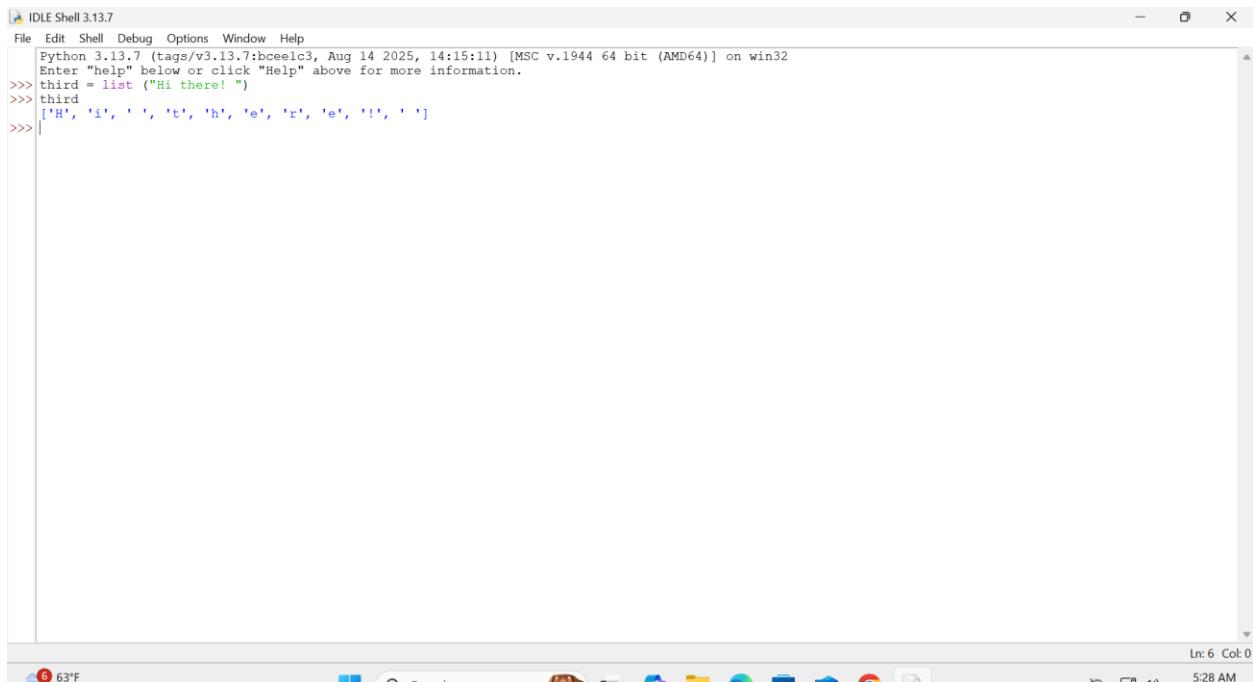
Lists

List Literals and Basic Operations

Page 116 -117

1. There are 8 small sets of code example blocks for this section. The first is about 3/4 way down and starts with Import math.

2. The second code example block is at the bottom and spills over to the top of the next page (117) and starts with first=.
3. The third code example block is just a few lines later and starts with third=.



The screenshot shows the Python IDLE Shell window. The title bar reads "IDLE Shell 3.13.7". The menu bar includes File, Edit, Shell, Debug, Options, Window, and Help. A status bar at the bottom right shows "Ln: 6 Col: 0", the date "10/18/2025", and the time "5:28 AM". The main window displays the following Python code:

```
Python 3.13.7 (tags/v3.13.7-bceelc3, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>> third = list("Hi there!")
>>> third
['H', 'i', ' ', 't', 'h', 'e', 'r', 'e', '!', ' ']
```

4. The fourth code example block starts with the len function.
5. The fifth code example block starts with first + .
6. The sixth code example block will be the one that starts print.
7. The seventh code example block is the one that covers the for loop.
8. The last code example block on this page deals with the in operator.

The screenshot shows the Python IDLE Shell 3.13.7 interface. The menu bar includes File, Edit, Shell, Debug, Options, Window, and Help. The shell window displays the following Python code:

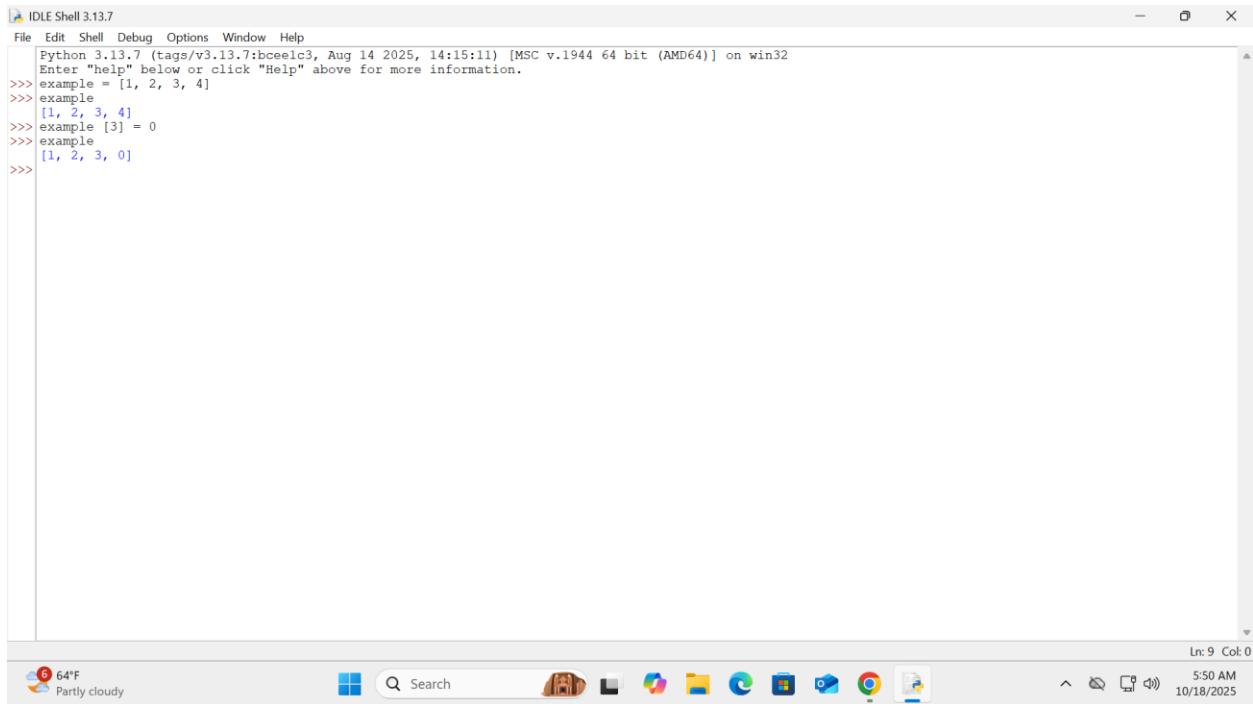
```
Python 3.13.7 (tags/v3.13.7:bceelc3, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>> first = [1, 2, 3, 4]
>>> second = list(range(1, 5))
>>> first
[1, 2, 3, 4]
>>> second
[1, 2, 3, 4]
>>> len(first)
4
>>> first[0]
1
>>> first[2:4]
[3, 4]
>>> first + [5, 6]
[1, 2, 3, 4, 5, 6]
>>> first == second
True
>>> print("1234")
1234
>>> print([1, 2, 3, 4])
[1, 2, 3, 4]
>>> for number in [1, 2, 3, 4]:
...     print(number, end=" ")
...
1 2 3 4
>>> 3 in [1, 2, 3]
True
>>> 0 in [1, 2, 3]
False
>>>
```

The status bar at the bottom right indicates Ln: 33 Col: 0. The taskbar at the bottom shows icons for File Explorer, Edge, and other Windows applications. The system tray shows a weather icon for 64°F and a date/time stamp of 5:40 AM 10/18/2025.

## Replacing an Element in a List

Page 118

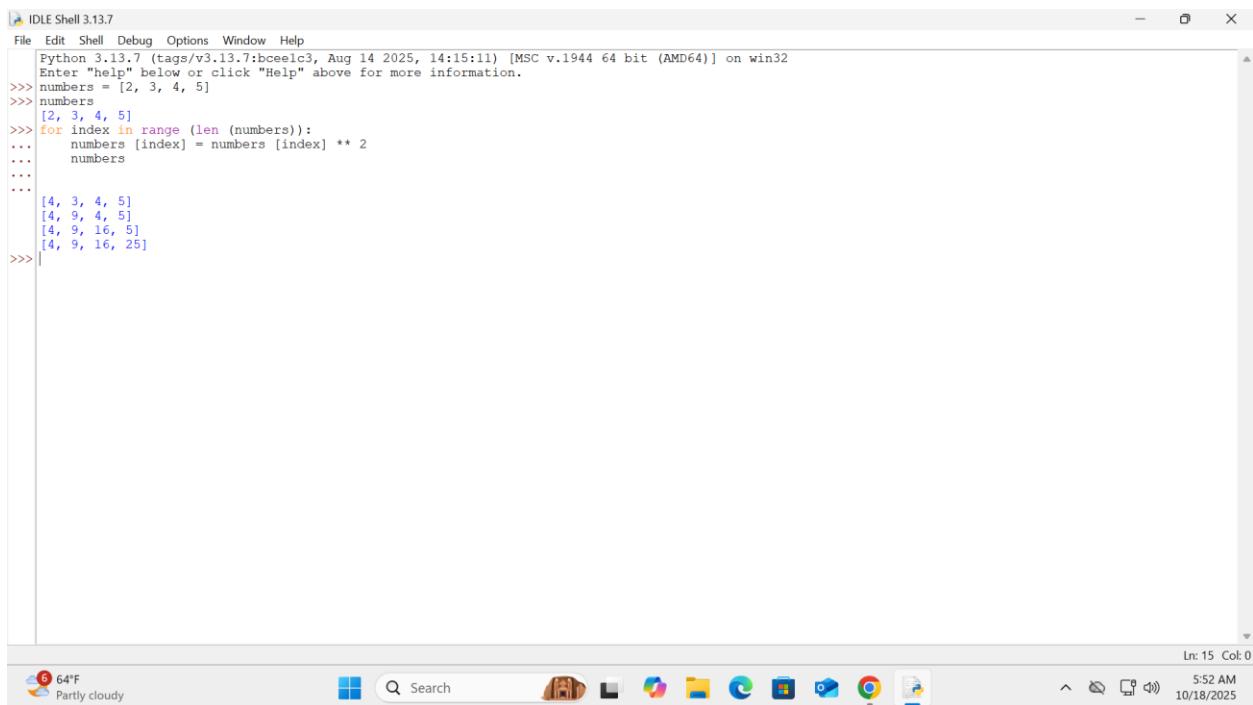
1. There are three code example blocks for this section, the first being about 3/4 the way down on the page.



The screenshot shows the Windows desktop environment. At the top is the taskbar with the Start button, search bar, and pinned icons for File Explorer, Microsoft Edge, and others. Below the taskbar is the system tray showing the date and time (10/18/2025, 5:50 AM). The main window is the IDLE Shell 3.13.7, which displays Python code and its output. The code shown is:

```
Python 3.13.7 (tags/v3.13.7-bceelc3, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>> example = [1, 2, 3, 4]
>>> example[3] = 0
>>> example
[1, 2, 3, 0]
>>>
```

2. The second code example block is at the bottom of the page.



The screenshot shows the Windows desktop environment. At the top is the taskbar with the Start button, search bar, and pinned icons for File Explorer, Microsoft Edge, and others. Below the taskbar is the system tray showing the date and time (10/18/2025, 5:52 AM). The main window is the IDLE Shell 3.13.7, which displays Python code and its output. The code shown is:

```
Python 3.13.7 (tags/v3.13.7-bceelc3, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>> numbers = [2, 3, 4, 5]
>>> numbers
[2, 3, 4, 5]
>>> for index in range(len(numbers)):
...     numbers[index] = numbers[index] ** 2
...
>>> numbers
[4, 9, 16, 25]
>>> |
```

3. The last code example block on the page is at the top of page 119.

The screenshot shows the Windows desktop environment. At the top is the taskbar with the Start button, search bar, and pinned icons for File Explorer, Edge, and others. Below the taskbar is the system tray showing the date and time (10/18/2025, 5:56 AM). The main window is the Python IDLE Shell, version 3.13.7, running on win32. The code in the shell window is:

```
>>> sentence = "This example has five words."
>>> words = sentence.split()
>>> words
['This', 'example', 'has', 'five', 'words.']
>>> for index in range(len(words)):
...     words[index] = words[index].upper()
...
>>> words
['THIS', 'EXAMPLE', 'HAS', 'FIVE', 'WORDS.']
>>> words[0]
'THIS'
>>>
```

## List Methods for Inserting and Removing Elements

Page 119 - 120

1. There are three code example blocks on this page, the first is at the bottom of the page.

The screenshot shows the Windows desktop environment. At the top is the taskbar with the Start button, search bar, and pinned icons for File Explorer, Edge, and others. Below the taskbar is the system tray showing the date and time (10/18/2025, 5:59 AM). The main window is the Python IDLE Shell, version 3.13.7, running on win32. The code in the shell window is:

```
>>> example = [1, 2]
>>> example
[1, 2]
>>> example.insert(1, 10)
>>> example
[1, 10, 2]
>>> example.insert(3, 25)
>>> example
[1, 10, 2, 25]
>>>
```

## 2. The second code example block is on the top of page 120.



```
IDLE Shell 3.13.7
File Edit Shell Debug Options Window Help
Python 3.13.7 (tags/v3.13.7:bceelc3, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>> example = [1, 2]
>>> example
[1, 2]
>>> example.append(3)
>>> example
[1, 2, 3]
>>> example.extend ([11, 12, 13])
>>> example
[1, 2, 3, 11, 12, 13]
>>> example + [14, 15]
[1, 2, 3, 11, 12, 13, 14, 15]
>>> example
[1, 2, 3, 11, 12, 13]
>>>
```

## 3. The last is about halfway down the page.



```
IDLE Shell 3.13.7
File Edit Shell Debug Options Window Help
Python 3.13.7 (tags/v3.13.7:bceelc3, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>> example = [1,2,10,11,12,13]
>>> example
[1, 2, 10, 11, 12, 13]
>>> example.pop ()
13
>>> example
[1, 2, 10, 11, 12]
>>> example.pop (0)
1
>>> example
[2, 10, 11, 12]
>>>
```

# Searching a list

Page 121

1. The code example block is at the top of the page. It does not show output. You will need to show the output of that search code.

## Sorting a list

Page 121

1. The first code example block is about half way down the page.

IDLE Shell 3.13.7

File Edit Shell Debug Options Window Help

```
Python 3.13.7 (tags/v3.13.7:bcce1c3, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>> aList = [34, 45, 67]
>>> target = 45
>>> if target in aList:
...     print (aList.index (target))
... else:
...     print (-1)
...
...
...
>>> 1
>>> |
```

2 71°F Partly sunny

Search

7:42 PM 10/18/2025

2. The last code example block is on the bottom of the page but it is included on the next set of instructions as it ends on the next page. So just the one screen shot here on this page.

The screenshot shows the Python IDLE Shell 3.13.7 window. The menu bar includes File, Edit, Shell, Debug, Options, Window, and Help. The shell window displays the following Python code and its output:

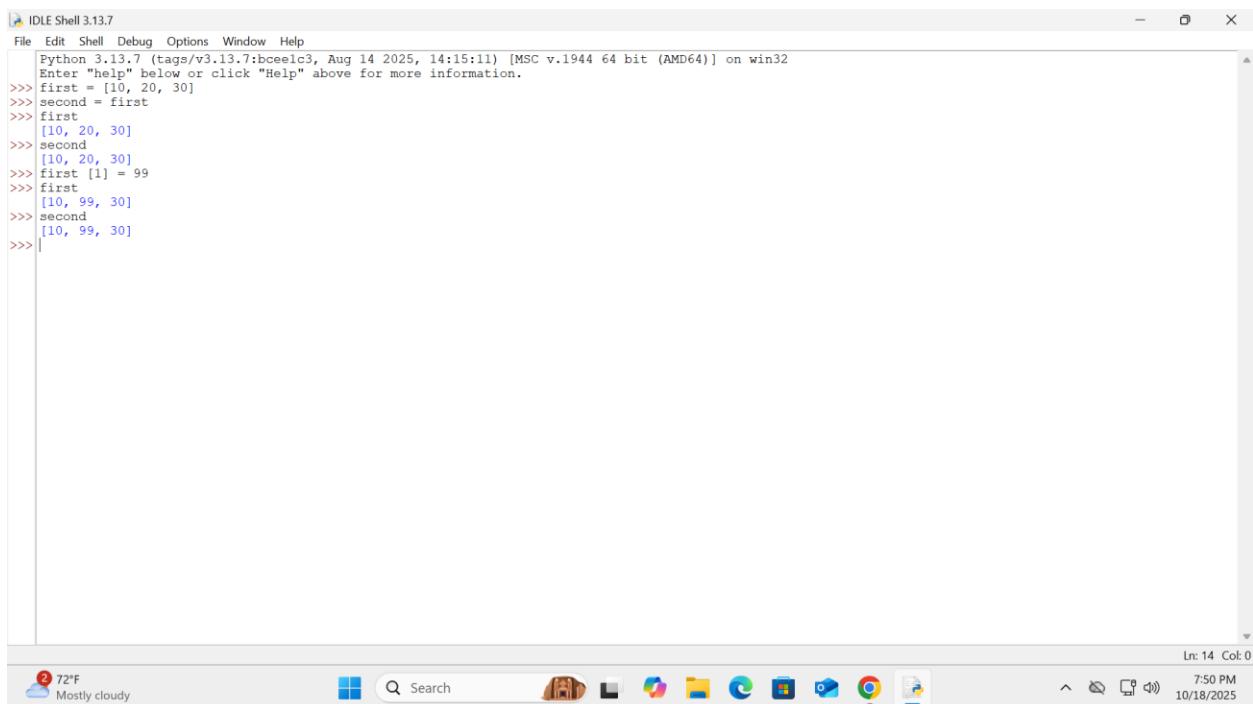
```
Python 3.13.7 (tags/v3.13.7:bceelc3, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>> example = [4, 2, 10, 8]
>>> example
[4, 2, 10, 8]
>>> example.sort()
>>> example
[2, 4, 8, 10]
>>>
```

The status bar at the bottom right indicates Ln: 9 Col: 0, 7:48 PM, and 10/18/2025.

## Aliasing and Side effects

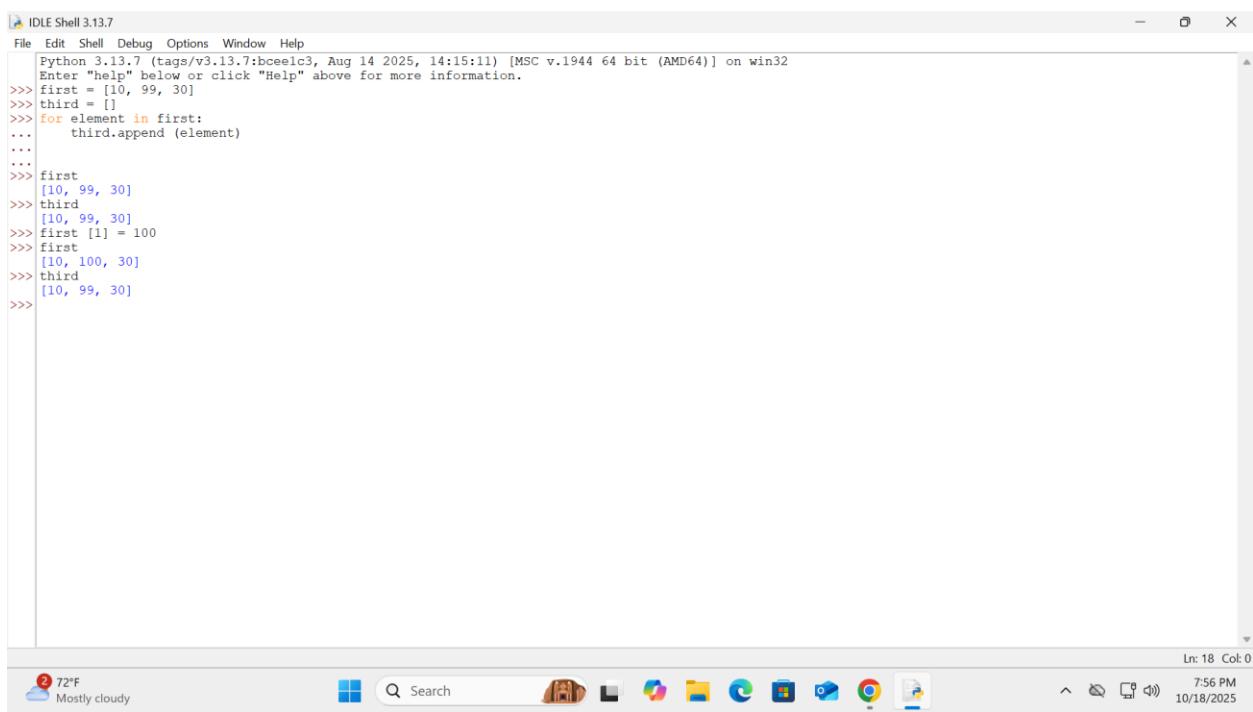
Page 122

1. The code example block that is at the top of this page. Put the screenshot of the whole set here under this set of instructions.



```
Python 3.13.7 (tags/v3.13.7:fbceefc3, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>> first = [10, 20, 30]
>>> second = first
>>> first
[10, 20, 30]
>>> second
[10, 20, 30]
>>> first[1] = 99
>>> first
[10, 99, 30]
>>> second
[10, 99, 30]
>>>
```

2. About 3/4 way down is the second and final code example block on this page.



```
Python 3.13.7 (tags/v3.13.7:fbceefc3, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>> first = [10, 99, 30]
>>> third = []
>>> for element in first:
...     third.append(element)
...
>>> first
[10, 99, 30]
>>> third
[10, 99, 30]
>>> first[1] = 100
>>> first
[10, 100, 30]
>>> third
[10, 99, 30]
>>>
```

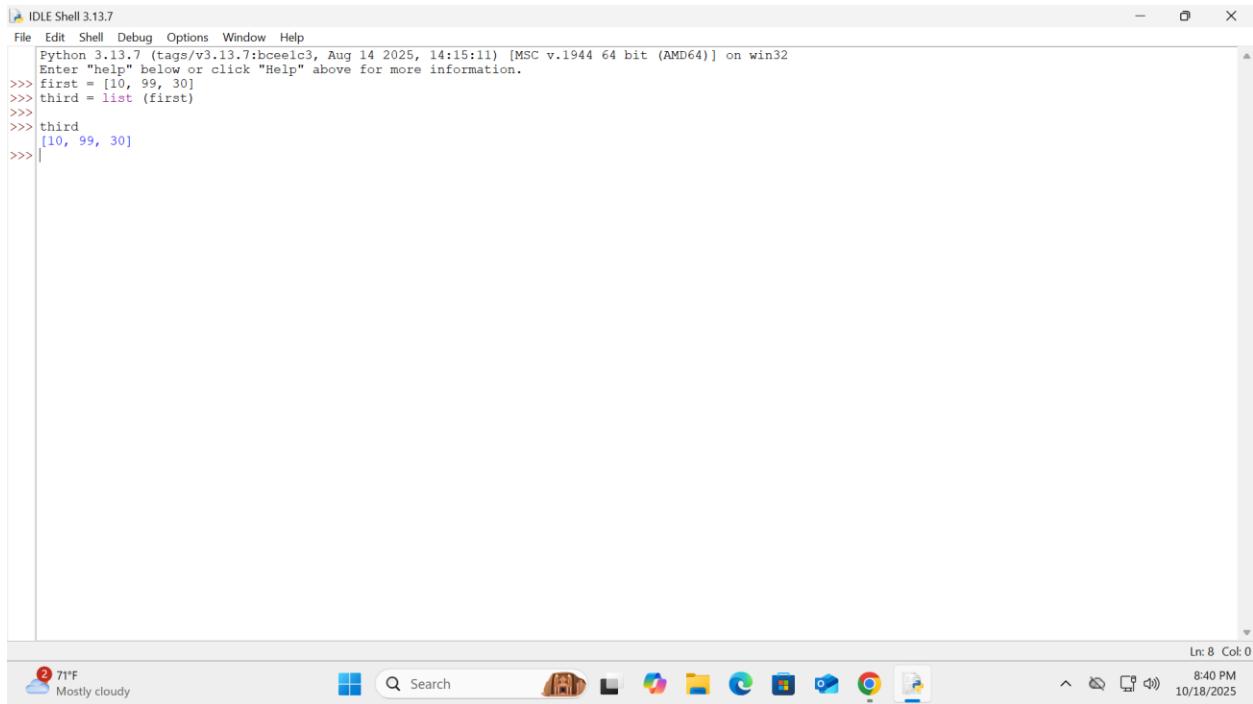
The screenshot shows a Windows desktop environment. At the top is the Python IDLE Shell 3.13.7 window, which displays the following code and its output:

```
Python 3.13.7 (tags/v3.13.7:bceelc3, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>> first = [10, 99, 30]
>>> third = []
>>> for element in first:
...     third.append(element)
...
>>> first
[10, 99, 30]
>>> third
[10, 99, 30]
>>> first[1] = 100
>>> first
[10, 100, 30]
>>> third
[10, 99, 30]
>>>
```

The taskbar at the bottom of the screen shows various pinned icons, the date (10/18/2025), and the time (8:38 PM). The weather icon indicates it's 71°F and mostly cloudy.

Page 123

1. There is a small code example block of a single line at the top.  
There is not output given but you will need to execute and catch the output in your screen shot.



IDLE Shell 3.13.7

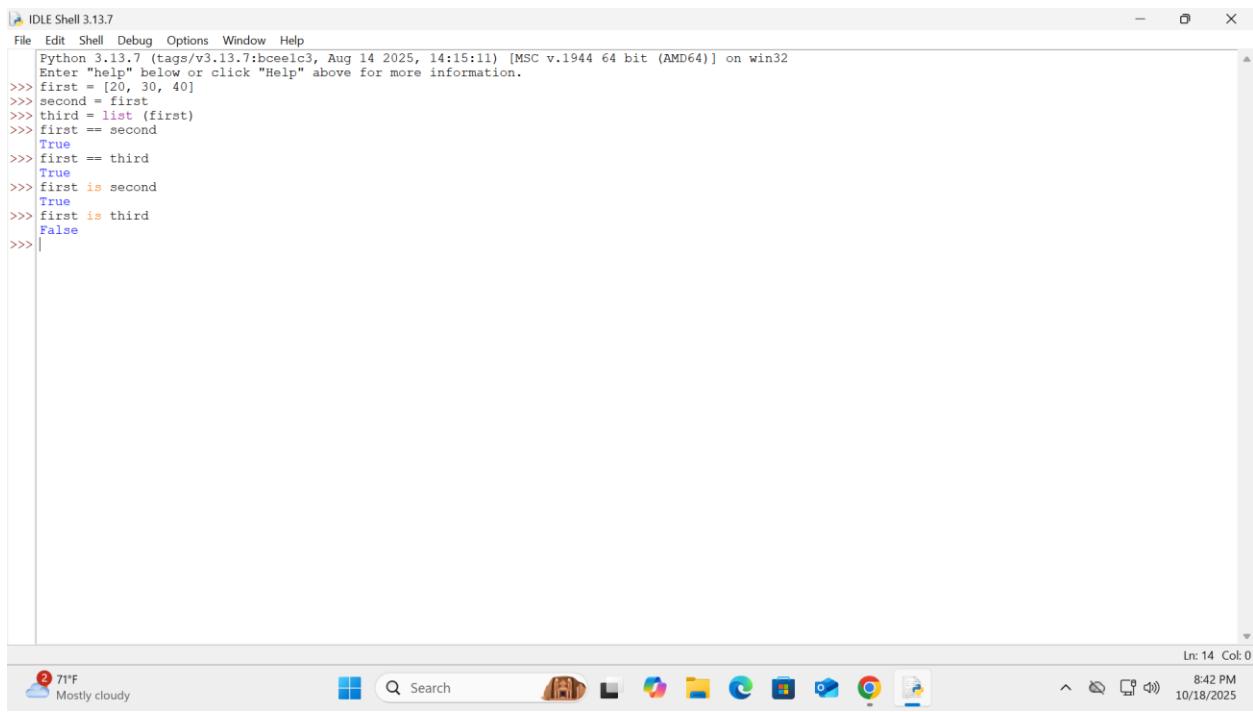
```
File Edit Shell Debug Options Window Help
Python 3.13.7 (tags/v3.13.7:bceelc3, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>> first = [10, 99, 30]
>>> third = list(first)
>>>
>>> third
[10, 99, 30]
>>> |
```

Ln: 8 Col: 0

71°F Mostly cloudy

Search

8:40 PM 10/18/2025



IDLE Shell 3.13.7

```
File Edit Shell Debug Options Window Help
Python 3.13.7 (tags/v3.13.7:bceelc3, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>> first = [20, 30, 40]
>>> second = first
>>> third = list(first)
>>> first == second
True
>>> first == third
True
>>> first is second
True
>>> first is third
False
>>> |
```

Ln: 14 Col: 0

71°F Mostly cloudy

Search

8:42 PM 10/18/2025

Page 124

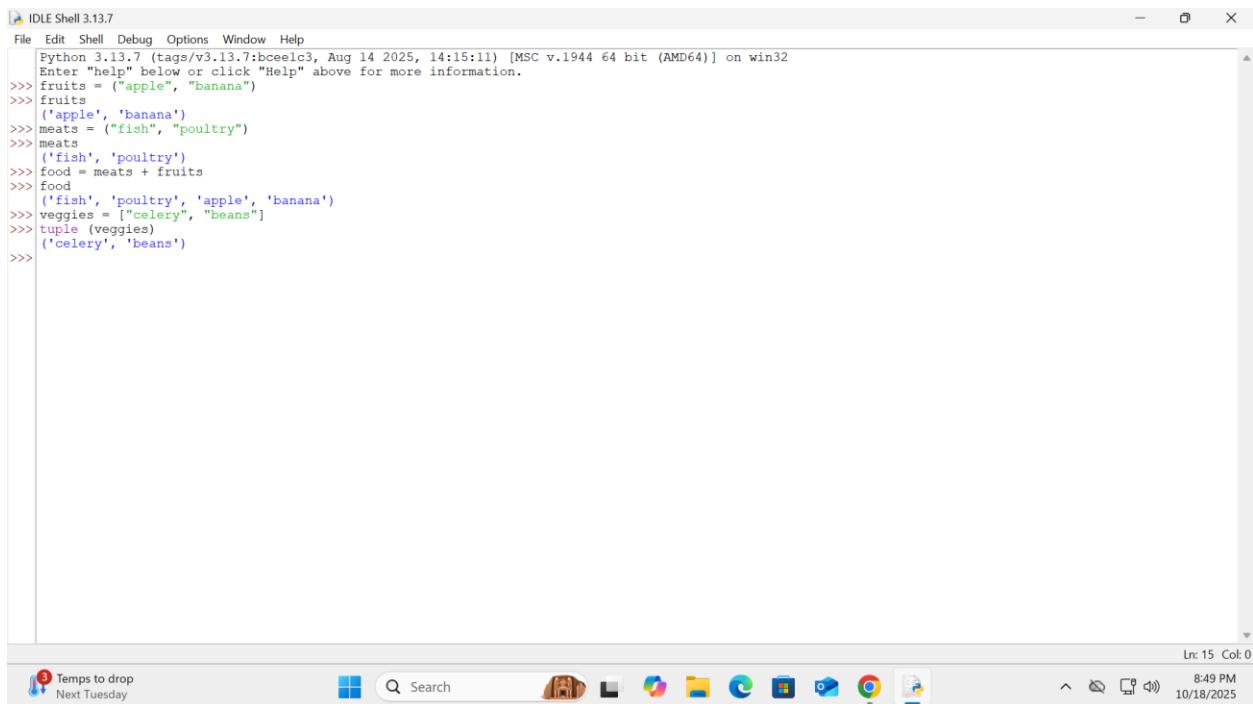
1. The first code example block is actually a script that is available in the download for this chapter. Load it in and run it to get the screen shot.

## Download could not open in python

### Tuples

Page 124

1. The first code example block starts at the bottom and spills over to the top of the next page. The screenshot for the entire code block should be on this page.



The screenshot shows the Python IDLE Shell window. The title bar reads "IDLE Shell 3.13.7". The menu bar includes File, Edit, Shell, Debug, Options, Window, and Help. The main window displays the following Python code:

```
File Edit Shell Debug Options Window Help
Python 3.13.7 (tags/v3.13.7:bcbeec3, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>> fruits = ("apple", "banana")
>>> fruits
('apple', 'banana')
>>> meats = ("fish", "poultry")
>>> meats
('fish', 'poultry')
>>> food = meats + fruits
>>> food
('fish', 'poultry', 'apple', 'banana')
>>> veggies = ["celery", "beans"]
>>> tuple (veggies)
('celery', 'beans')
>>>
```

The status bar at the bottom right indicates "Ln: 15 Col: 0". Below the status bar, the taskbar shows various icons for Windows applications like File Explorer, Task View, and Google Chrome. A notification in the bottom left corner says "3 Temps to drop Next Tuesday". The system tray shows the date and time as "8:49 PM 10/18/2025".

2. The second code example block is about 1/3 of the way and just before the exercises portion on the page.

The screenshot shows the IDLE Shell 3.13.7 window. The menu bar includes File, Edit, Shell, Debug, Options, Window, and Help. The main window displays Python code and its output:

```
Python 3.13.7 (tags/v3.13.7:fbceefc3, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>> badSingleton = (3)
>>> badSingleton
3
>>> goodSingleton = (3,)
>>> goodSingleton
(3,
)
>>>
```

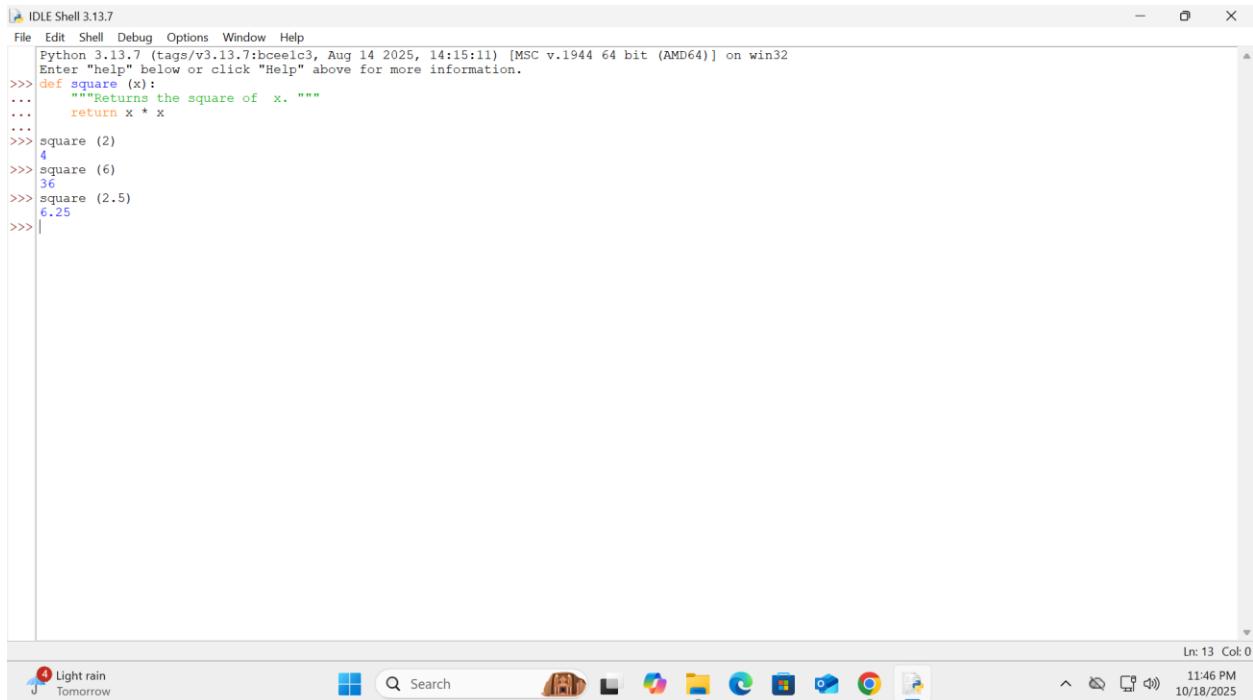
The status bar at the bottom right shows Ln: 9 Col: 0. The taskbar at the bottom includes icons for Weather (62°F Cloudy), Search, File Explorer, File Manager, Task View, Taskbar settings, and Start. The system tray shows the date and time as 11:39 PM 10/18/2025.

## Defining Simple Functions

### The Syntax of Simple Function Definitions

Page 126

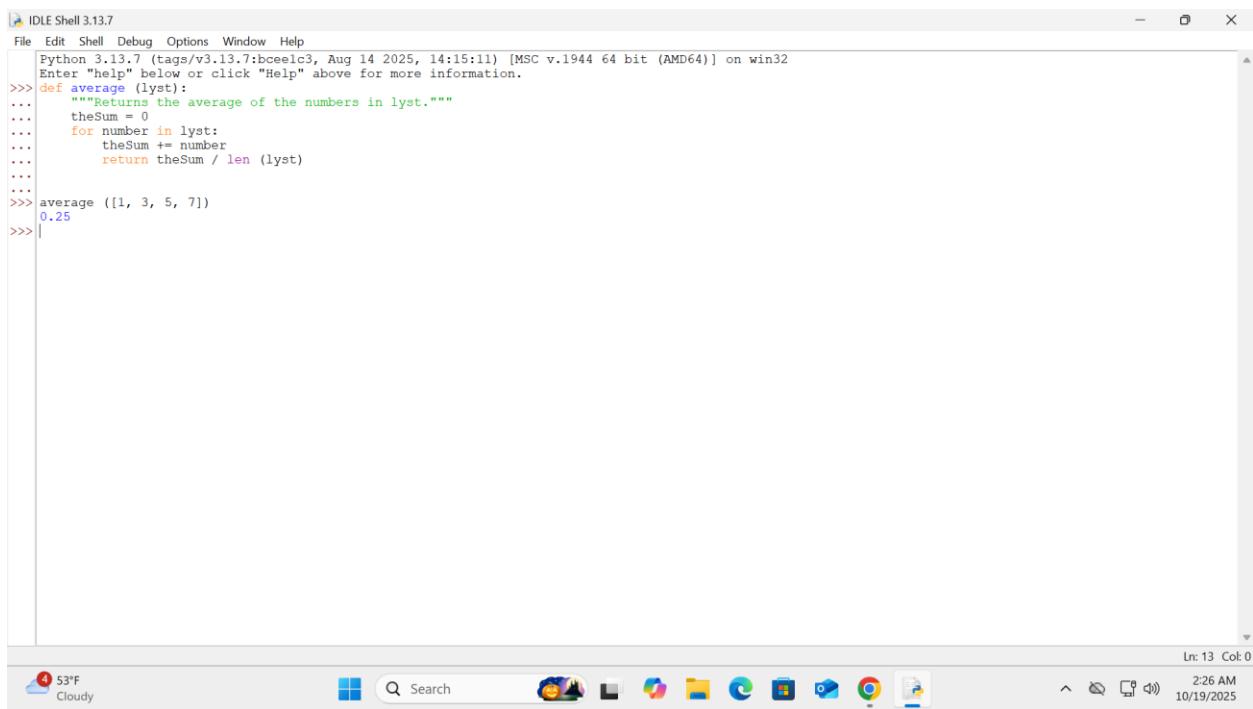
1. You will need to do the small code example block about 1/2 of the way page before doing the few lines above it. This last code example block on the page defines the function that is used in those previous lines.



A screenshot of a Windows desktop environment. At the top is the taskbar with various pinned icons. Below it is the Start button. The main area shows the IDLE Shell window titled "IDLE Shell 3.13.7". The window has a menu bar with File, Edit, Shell, Debug, Options, Window, and Help. The code editor pane contains Python code for a square function and its execution. The status bar at the bottom right shows "Ln: 13 Col: 0" and the date/time "10/18/2025 11:46 PM".

```
>>> def square (x):
...     """Returns the square of x. """
...     return x * x
...
>>> square (2)
4
>>> square (6)
36
>>> square (2.5)
6.25
>>>
```

2. The code example block in at the bottom of the page and spills over to the top of the next page is similar to the one above. In that the function needs to be typed in first and then the line above it so it will execute correctly.



A screenshot of a Windows desktop environment. At the top is the taskbar with various pinned icons. Below it is the Start button. The main area shows the IDLE Shell window titled "IDLE Shell 3.13.7". The window has a menu bar with File, Edit, Shell, Debug, Options, Window, and Help. The code editor pane contains Python code for an average function and its execution. The status bar at the bottom right shows "Ln: 13 Col: 0" and the date/time "10/19/2025 2:26 AM".

```
>>> def average (lyst):
...     """Returns the average of the numbers in lyst."""
...     theSum = 0
...     for number in lyst:
...         theSum += number
...     return theSum / len (lyst)
...
...
>>> average ([1, 3, 5, 7])
0.25
>>>
```

## Boolean Function

Page 127

1. The code example block in the middle of this page also has that function example after the lines that use it. So you will need to type in the function items first and then do the examples using the function.

The screenshot shows the Python IDLE Shell window. The title bar reads "IDLE Shell 3.13.7". The menu bar includes File, Edit, Shell, Debug, Options, Window, and Help. The main window displays the following code:

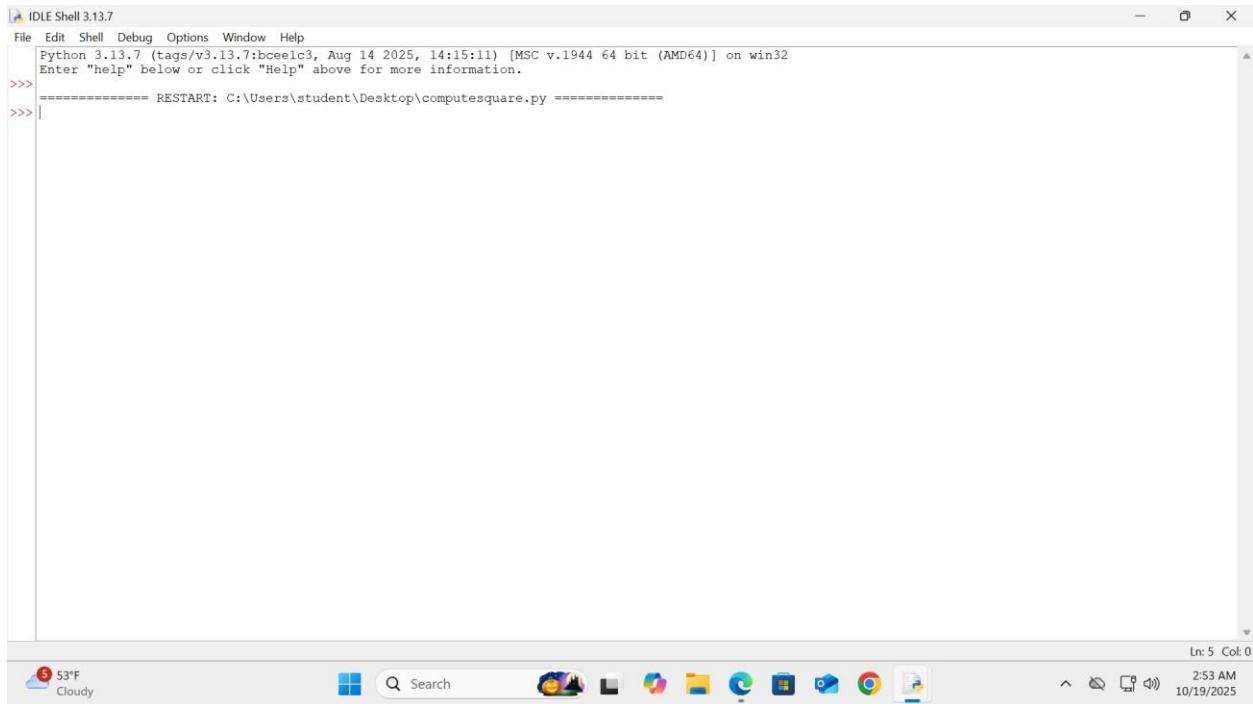
```
Python 3.13.7 (Tags/v3.13.7:bceelc3, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>> def odd(x):
...     """Returns True if x is odd or False otherwise."""
...     if x % 2 == 1:
...         return True
...     else:
...         return False
...
>>> odd(5)
True
>>> odd(6)
False
>>>
```

The status bar at the bottom right shows "Ln: 15 Col: 0". Below the window, the Windows taskbar is visible, showing icons for the Start button, Search, and various pinned applications like File Explorer, Edge, and Mail. The system tray shows the date and time as "10/19/2025 2:33 AM".

## Defining the Main function

Page 128

1. You may find that the code example block is easier to implement with a script than in the interactive shell. So put this code example block into a script and then execute it, catching the screen shot after implementation.



The screenshot shows the IDLE Shell 3.13.7 window. The menu bar includes File, Edit, Shell, Debug, Options, Window, and Help. A status bar at the bottom right indicates Ln: 5 Col: 0. The main window displays Python code:

```
>>> Python 3.13.7 (tags/v3.13.7-ibceelc3, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)] on win32
>>> Enter "help" below or click "Help" above for more information.
>>> ===== RESTART: C:\Users\student\Desktop\computesquare.py =====
>>> |
```

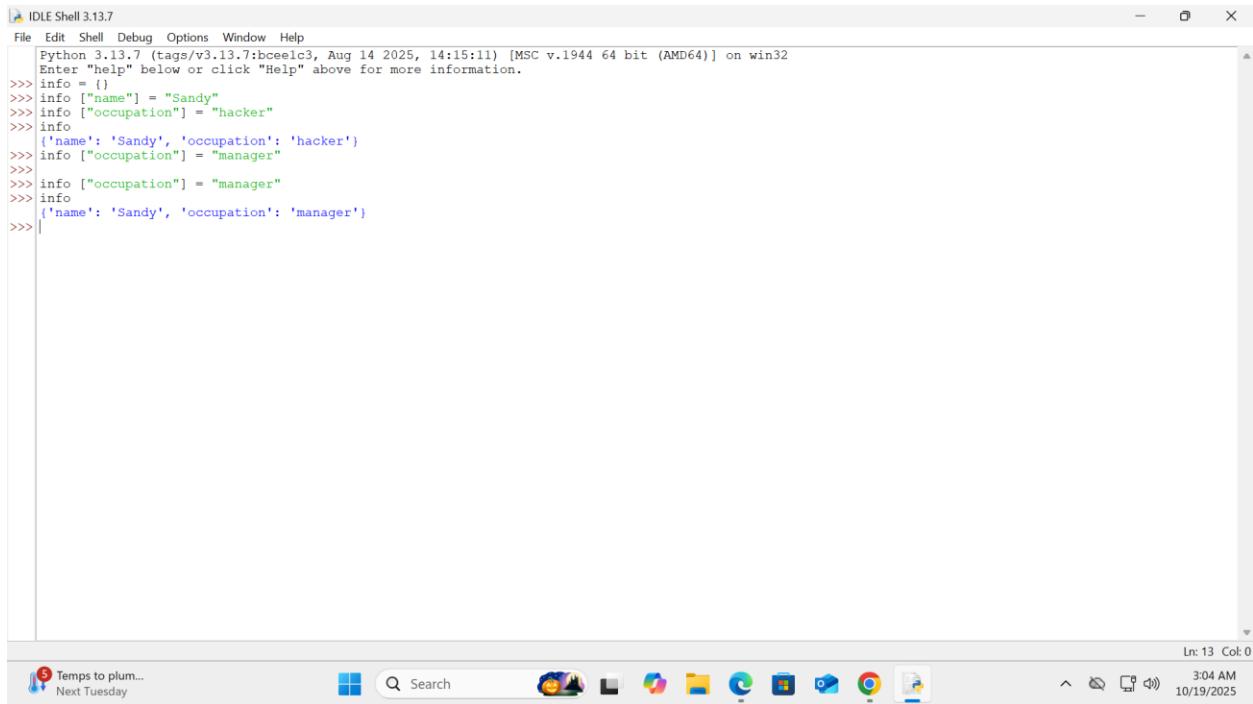
The Case study Generating Sentences is not one you need to catch screen shots of but you should go through it and use it as a learning tool.

Dictionaries

Adding Keys and Replacing Values

Page 132

1. At the bottom of the page, there is code example block of a few lines and then another line after some text. They are all together 1 block and you can include them all into a single screen shot.



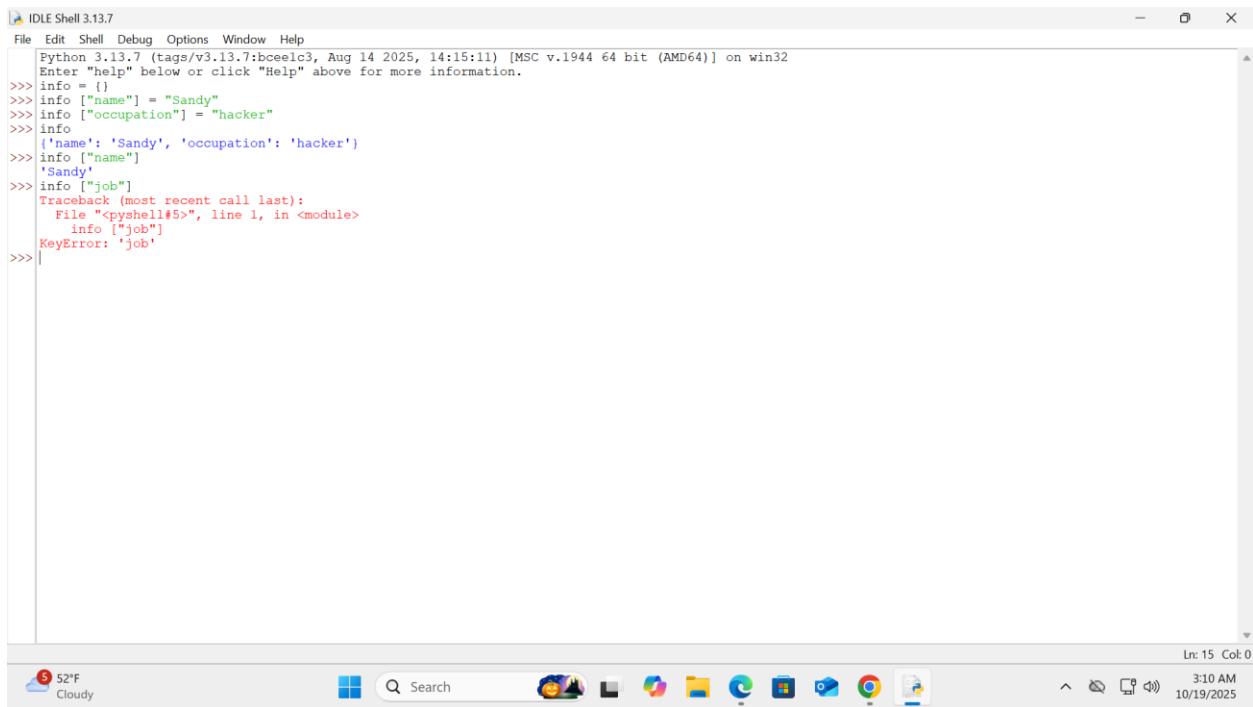
```
File Edit Shell Debug Options Window Help
Python 3.13.7 (tags/v3.13.7:bceelc3, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>> info = {}
>>> info ["name"] = "Sandy"
>>> info ["occupation"] = "hacker"
>>> info
{'name': 'Sandy', 'occupation': 'hacker'}
>>> info ["occupation"] = "manager"
>>>
>>> info
{'name': 'Sandy', 'occupation': 'manager'}
```

Temps to plum...  
Next Tuesday

Search

3:04 AM  
10/19/2025

2. There is a small code example block at the end of the page. It shows an error condition. Grab a screenshot of the error you get. The code ends on the page also.



```
File Edit Shell Debug Options Window Help
Python 3.13.7 (tags/v3.13.7:bceelc3, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>> info = {}
>>> info ["name"] = "Sandy"
>>> info ["occupation"] = "hacker"
>>> info
{'name': 'Sandy', 'occupation': 'hacker'}
>>> info ["name"]
'Sandy'
>>> info ["job"]
Traceback (most recent call last):
  File "<pyshell#5>", line 1, in <module>
    info ["job"]
KeyError: 'job'
```

52°F  
Cloudy

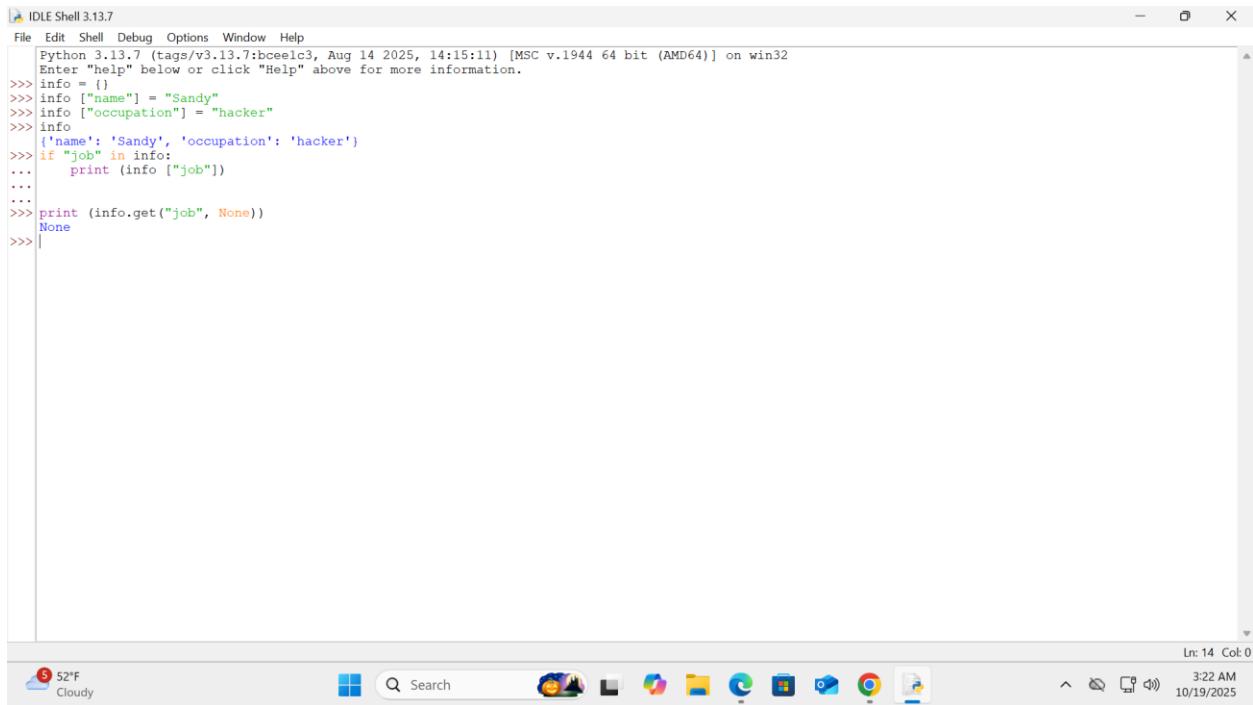
Search

3:10 AM  
10/19/2025

## Accessing Values

Page 133

1. There are two small code example blocks at the top of the page.  
Both can be placed into a single screen shot



The screenshot shows the Python IDLE Shell window. The menu bar includes File, Edit, Shell, Debug, Options, Window, and Help. The title bar says "IDLE Shell 3.13.7". The main window displays the following Python code:

```
Python 3.13.7 (tags/v3.13.7:bceelc3, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.

>>> info = {}
>>> info ["name"] = "Sandy"
>>> info ["occupation"] = "hacker"
>>> info
{'name': 'Sandy', 'occupation': 'hacker'}
>>> if "job" in info:
...     print (info ["job"])
...
...
>>> print (info.get("job", None))
None
>>>
```

The status bar at the bottom right shows "Ln: 14 Col: 0". The taskbar at the bottom of the screen includes icons for the Start button, Search, Task View, File Explorer, Edge, and other system icons. The date and time are shown as "10/19/2025 3:22 AM".

2. In the middle of the page, there is a code example block about removing keys.

The screenshot shows the Python IDLE Shell 3.13.7 window. The code in the shell is:

```
>>> info = {}
>>> info ["name"] = "Sandy"
>>> info ["occupation"] = "hacker"
>>> info
{'name': 'Sandy', 'occupation': 'hacker'}
>>> info ["occupation"] = "manager"
>>> info
{'name': 'Sandy', 'occupation': 'manager'}
>>> print(info.pop("job", None))
None
>>> print(info.pop("occupation"))
manager
>>> info
{'name': 'Sandy'}
```

The status bar at the bottom right indicates "Ln: 17 Col: 0". The taskbar at the bottom shows the weather (51°F, Light rain), a search icon, and several pinned application icons.

## Traversing a Dictionary

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1. The last code example blocks starts at the bottom of the page and spills over to the top of the next page. This can be grouped into a single screen shot if you would like.

A screenshot of a Windows desktop environment. At the top is the taskbar with various pinned icons. In the center is a window titled "IDLE Shell 3.13.7". The window has a menu bar with File, Edit, Shell, Debug, Options, Window, and Help. The main area contains Python code and its output. The code defines a dictionary 'info' with key-value pairs for 'name' and 'occupation'. It then iterates over the dictionary to print each key-value pair. The output shows 'name Sandy' and 'occupation manager'. The bottom right corner of the window displays "Ln: 17 Col: 0". The taskbar also shows the date and time as 10/19/2025 and 3:37 AM.

```
File Edit Shell Debug Options Window Help
Python 3.13.7 (tags/v3.13.7:bcce1c3, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>> info = {}
>>> info ["name"] = "Sandy"
>>> info ["occupation"] = "hacker"
>>> info
{'name': 'Sandy', 'occupation': 'hacker'}
>>> info ["occupation"] = "manager"
>>> info
{'name': 'Sandy', 'occupation': 'manager'}
>>> for key in info:
...     print (key, info[key])
...
...
name Sandy
occupation manager
>>> |
```

2. There is a small code example block about 1/2 the way down that page.

A screenshot of a Windows desktop environment, similar to the one above. The taskbar shows various icons and the date/time as 10/19/2025 and 3:51 AM. In the center is the "IDLE Shell 3.13.7" window. The menu bar and code block are identical to the first screenshot. The output shows the same printed key-value pairs from the dictionary 'grades'. The bottom right corner of the window displays "Ln: 13 Col: 0".

```
File Edit Shell Debug Options Window Help
Python 3.13.7 (tags/v3.13.7:bcce1c3, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>> grades = {90:'A', 80:'B', 70: 'C'}
>>> list (grades.items ())
[(90, 'A'), (80, 'B'), (70, 'C')]
>>> for (key, value) in grades.items():
...     print (key, value)
...
...
90 A
80 B
70 C
>>> |
```

Example: The Hexadecimal system revisited

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1. The code example blocks here from a series of items that are interrelated. You may find this also easier to do in a script instead of interactive. If you do go the way of a script, be sure to run it and capture the output.

Example: Finding the Mode of a list of Values

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1. The code example block at the bottom of the page and spills over to the top of the next page. Finish it up on this one and capture the screen shots as needed. This one too may be one you prefer to do in a script instead of the interactive mode.

The screenshot shows a Windows desktop environment. At the top, there is a taskbar with various icons for common applications like File Explorer, Microsoft Edge, and the Start button. Below the taskbar, two windows are open:

- Convert.py - C:\Users\student\Desktop\Convert.py (3.13.7)**: This window contains Python code for converting hex values to binary. The code defines a function `convert` that takes a number and a table as arguments. It initializes an empty string `binary`, loops through each digit of the number, appends the corresponding binary value from the table to `binary`, and then returns the final binary string.
- IDLE Shell 3.13.7**: This window shows the Python interpreter's prompt (`>>>`). It displays the Python version (3.13.7), the build date (Aug 14 2025), and the command to restart the shell (RESTART: C:\Users\student\Desktop\Convert.py).

The desktop background is white, and the overall interface is typical of a Windows 10 operating system.

This screenshot is identical to the one above, showing the same two windows and the same desktop environment. The taskbar at the bottom includes icons for File Explorer, Microsoft Edge, and the Start button.

The Case Study on Psychotherapy is not included for grabbing screen shots but you should read through for learning opportunities.