**Presentation Notes:**

1. What are the two main parts of a computer architecture?
   1. CPU processor
   2. RAM memory
2. Google “basic Python commands” and list four commands.
   1. Print
   2. Del
   3. Exec
   4. True
3. Identify the two *syntax errors* in the following command: **Print("This command prints messages)**
   1. Typos
   2. Quotation marks
4. Summarize the cause and effect of a *syntax error*.

Typos and missing symbols cause syntax errors. The effects of this are syntax errors and red lines.

1. Explain what happens if you use a variable before it is defined.

It gives a runtime error on the other side with red lines. They state that the word “myAnswer” is not defined.

1. Summarize the cause and effect of a *run-time* error.

The command which you write may not be defined and therefore, the effect of this is a runtime error error.

1. Write a Python statement to assign the value of 24 to the variable class Size.

numberOfStudents=24

1. Create a valid Python variable name to store a student exam mark and that follows the “mixedCase” style guidelines.

examMarks

1. Create a valid Python variable name to store a student exam mark and that DOES NOT follow the “mixedCase” style guidelines.

EXAMMARK

1. Write a mathematical expression that assigns a value of 62 to the variable myAnswer.
   1. myAnswer = 2+10\*6

1. Write a mathematical expression that uses the variable aNumber and assigns a value of 77 to the variable myAnswer.
   1. aNumber =7
   2. myAnswer =aNumber+10\*7
2. Change the program on the last slide of the presentation to calculate and print out the cube (power 3) of an input number.

value = int(input("Enter a number:"))

value3 = value \*\* 3

print("The square of %d is %d" % (value,value3))

**Student Questions:**

A resource for Python Style guidelines mal be found here:

[https://www.python.org/dev/peps/pep-0008/#naming-conventions](https://www.python.org/dev/peps/pep-0008/)

1. Identify which of the following are valid Python variable names (even if they do not follow the mixedCase style guidelines).

|  |  |
| --- | --- |
|  | True / False |
| StudentNumber | True |
| 5thRow | False |
| else | true |
| break | true |
| Row\_5 | true |

1. Identify which of the following are valid Python variable names that also follow the mixedCase style guidelines.

|  |  |
| --- | --- |
|  | True / False |
| StudentNumber | False |
| studentNumber | True |
| row | False |
| row5 | False |
| Row5 | False |

1. Summarize the difference between a *syntax error* and a *run-time* error.

A syntax error is an error which shows red due to some undefined variable while a run-time error works but does not run the way you want it to.

1. Write an expression that calculates the cost of 6 slices of pizza at 2 dollars a slice assigns the result to a variable in RAM memory. Use proper style and meaningful names for your variables.

pizzaSlice = 6\*2

print ("That will cost$", pizzaSlice)

1. Write an expression that calculates the cost of a variable number slices of pizza at 2 dollars a slice assigns the result to a variable in RAM memory. Use proper style and meaningful names for your variables.

pizzaSlices= int(input("How many slices?"))

pizzaCost= 2

myAnswer = pizzaSlices \* pizzaCost

print("The price of %d slices is $%d" % (pizzaSlices, myAnswer))

1. Write a program that gets the number of slices from the console input, uses your expression in #5 above, and prints out the result to the console output. Use proper style and meaningful names for your variables and meaningful messages for your input and print commands.

pizzaSlices= int(input("How many slices?"))

pizzaCost= 2

myAnswer = pizzaSlices \* pizzaCost

print("The price of %d slices is $%d" % (pizzaSlices, myAnswer))

1. Extend your program in #6 above to also calculate and print out the number of boxes of pizza if each box contains 8 slices.

pizzaSlices= int(input("How many boxes?"))

pizzaCost= 16

myAnswer = pizzaSlices \* pizzaCost

print("The price of %d boxes is $%d" % (pizzaSlices, myAnswer))