**Presentation Notes:**

1. What are the two main parts of a computer architecture?
   1. CPU Chip
   2. RAM Memory
2. Google “basic Python commands” and list four commands.
   1. Print command
   2. If statement
   3. Character name
   4. Character age
3. Identify the two *syntax errors* in the following command: **Print("This command prints messages)**
   1. “p” needs to be lowercase.
   2. No quotation in the end.
4. Summarize the cause and effect of a *syntax error*.

The cause of a syntax error can be caused by a typo in your program and the effect would be the program does not run.

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

If you were to run the command, it would give you a runtime error.

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

The cause of a runtime error is using a variable before its defined and the effect would be the program won’t run.

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

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

A valid python variable name would be, examMarkICS2O0

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

A valid variable that does not follow guidlines, Exammarkics2O0

1. Write a mathematical expression that assigns a value of 62 to the variable myAnswer.
   1. myAnswer = (31 \* 2)

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

You would make it from \*\*2, to \*\*3 to change the power.

**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 | False |
| break | False |
| 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 | True |
| row5 | True |
| Row5 | False |

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

A syntax error is when a misspelling or a typo in the program occurs whereas a run-time error is when a variable is not given a value and/or meaning.

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.

The variable I made is “amountOfSlices”, which is the amount of slices that need to be bought (6, multiplied the cost of each slice (2).

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.

The variable I made is “slice”, which is the amount of slices that need to be bought (if two slices need to be bought, the number two will be written). The expression created is slice \* 2.

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.

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

**value2 = value \* 2**

**print("The total cost of %d slices is % dollars" % (value,value2))**

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.

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

value2 = value \* 16

print("The toal cost %d boxes is %d dollars" % (value,value2))