**Unit 1 Links to Kahoots and Unit Tests**

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| Mission 1, 2, 3 | <https://create.kahoot.it/share/firia-labs-ap-csp-mission-1-2-3/5be3baab-3370-49ae-8912-adf30394f2bd> |
| Mission 4 | <https://create.kahoot.it/share/firia-labs-mission-4/98961e05-e6e6-435a-90ca-0f01a2d757ef> |
| Mission 5 | <https://create.kahoot.it/share/firia-labs-mission-5/9b0dba3c-afa2-4174-8af7-e227b949e3bf> |
| Unit 1 Vocabulary Review | <https://create.kahoot.it/share/firia-labs-unit-1-vocab-review/c410d2b9-12f9-4708-bd82-46c685a48652> |
| Unit 1 Coding and Concepts Review | <https://create.kahoot.it/share/firia-labs-unit-1-code-review/0b570dec-fb94-4350-856d-4246c59ba0d7> |
| Unit 1 Vocabulary Exam (MS Form) | <https://forms.office.com/Pages/ShareFormPage.aspx?id=DQSIkWdsW0yxEjajBLZtrQAAAAAAAAAAAAO__SjBvJpUQzlYRUdYUzQyMldRODgzRUZHVzJUSzFFSy4u&sharetoken=tDTG96CmUc8q3KXIp3X7> |
| Unit 1 Coding and Concepts Exam (MS Form) | <https://forms.office.com/Pages/ShareFormPage.aspx?id=DQSIkWdsW0yxEjajBLZtrQAAAAAAAAAAAAO__SjBvJpUQzg1NDZESDgxUTVJN01ORUtLVUVBTkZBRi4u&sharetoken=ODTUi2geoYjKxOC6yYdd> |

**Unit 1 Question Bank: Kahoot Reviews and Microsoft Forms Exams**

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| **Missions 1, 2 & 3 Kahoot Review** | |
| What is a “bug”? | 1. A moth in a computer 2. An error in the code, like a typing mistake 3. A creeping thing with several legs 4. When your program runs slowly |
| What is “CPU”? | 1. The brain of the computer 2. The center intelligence agency 3. The keyboard, printer and screen 4. The hardware of the computer, like the tower and cables |
| What is “peripheral”? | 1. The hardware of the computer, like the case and cables 2. The brain of the computer 3. A problem with the code that needs to be fixed 4. Devices that interact with the CPU |
| What is “RGB”? | 1. The peripherals needed on a computer – keyboard, screen, printer 2. The brain of the computer 3. The lights in a pixel that can create all colors 4. A debugging technique while coding |
| What is “sequencing”? | 1. Executing two lines of code at the same time 2. Executing code one line at a time in order 3. A name for any value, used throughout a program 4. A specific value, like 1 or “hello” |
| What is “literal”? | 1. Similar to peripheral, it is a device 2. A name for any value, used throughout a program 3. A type of data that can be stored 4. A specific value, like 1 or “hello” |
| What is “variable”? | 1. Similar to peripheral, it is a device 2. A name for any value, used throughout a program 3. A type of data that can be stored 4. A specific value, like 1 or “hello” |
| What line of code defines a variable? | 1. delay 2. delay = 1 3. 1 4. define delay |
| What does this code do? | 1. Puts the CPU in sleep mode for 1 second 2. Delays program execution for 1 second 3. Assigns the value 1 to the variable delay 4. Sets the parameter to 1 |
| What does this code do? | 1. Puts the CPU in sleep mode for 1 second 2. Delays program execution “delay” seconds 3. Delays program execution for 1 second 4. Causes an error |

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| **Mission 4 Kahoot Review** | |
| What is an “argument”? | 1. A built-in function that converts one type to another 2. A decision point in code; a branch 3. Information passed to a function so it can complete its task 4. Structuring a block of code by indenting 4 spaces |
| What is “selection”? | 1. A built-in function that converts one type to another 2. A decision point in code; a branch 3. Information passed to a function so it can complete its task 4. Structuring a block of code by indenting 4 spaces |
| What is the argument in the code? | 1. display 2. fill 3. BLACK 4. There isn’t one |
| What is the best data type for this value: “hello” | 1. Integer 2. String 3. Boolean 4. CodeX image |
| What is the best data type for this value: pics.PLANE | 1. Integer 2. String 3. Boolean 4. CodeX image |
| What is the best data type for this value: 42 | 1. Integer 2. String 3. Boolean 4. CodeX image |
| What is the best data type for this value: True | 1. Integer 2. String 3. Boolean 4. CodeX image |
| What is the result if the user presses button A? | 1. The first pixel turns GREEN 2. The first pixel turns RED 3. The last pixel turns RED 4. The first pixel turns GREEN and the last pixel turns RED |
| What is the result if the user presses button A? | 1. The first two pixels turn GREEN 2. Each of the pixels will flash a color 3. The last two pixels turn RED 4. The first pixels turn GREEN and the last pixels turn RED |
| What is the result if the user presses button A? | 1. The display screen turns WHITE 2. The display screen turns BLACK 3. Nothing will happen; the block is skipped 4. An error |

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| **Mission 5 Kahoot Review** | |
| What is “analog”? | 1. Making the code readable by adding blank lines and comments to the code 2. Smooth and continuous signals that represent a quantity, like sound waves 3. Creating and using functions in the program so the code can be reused 4. A numeric representation of an analog signal, represented in increments |
| What is “digital”? | 1. Making the code readable by adding blank lines and comments to the code 2. Smooth and continuous signals that represent a quantity, like sound waves 3. Creating and using functions in the program so the code can be reused 4. A numeric representation of an analog signal, represented in increments |
| What is “readability”? | 1. Adding blank lines and comments to code so it is easy to understand 2. Notes in code that explain what the code does; ignored by the computer 3. Creating and using functions in the program so the code can be reused 4. A numeric representation of an analog signal, represented in increments |
| What are “comments”? | 1. Adding blank lines and comments to code so it is easy to understand 2. Notes in code that explain what the code does; ignored by the computer 3. Creating and using functions in the program so the code can be reused 4. A numeric representation of an analog signal, represented in increments |
| What is an example of a multiline comment? | 1. **C,** 2. D. |
| What does the “import” command do? | 1. Allows you to use the CodeX, time and random numbers 2. Moves the code to a different programming environment 3. Provides access to pre-built functions and methods in coding libraries 4. Enables object-oriented programming |
| Which is NOT something that makes your code more readable? | 1. Short variable names, like ‘ab’ or ‘xy’ 2. Comments that explain the code 3. Consistent 4-space indenting in code blocks 4. Blank lines separating sections of code |
| What does this line of code do? | 1. Plays the audio file “roll” 2. Assigns the value “sounds/roll” to a variable named ‘play\_it’ 3. Uploads the audio file ‘roll’ into the CodeX sounds folder 4. Causes an error |
| This code segment is an example of: | 1. Randomization 2. Selection 3. Sequencing 4. Iteration |
| This code segment is an example of: | 1. Randomization 2. Selection 3. Sequencing 4. Iteration |

**Additional questions are provided below for the supplemental lessons: Defining Functions and RGB colors**

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| **Unit 1 Vocabulary (Kahoot Review and Unit 1 Exam)** | |
| Select the best computer science definition for each vocabulary word | |
| Code | 1. Where you type a program 2. **Instructions to the computer** 3. A secret password 4. A way to hide a message |
| Bug | 1. **An error in the code; like a typing mistake** 2. When your program runs slowly 3. A moth that gets stuck in a computer 4. When your program never stops |
| CPU | 1. A debugging technique 2. The program you write 3. The devices you attach to CodeX 4. **The brain of the computer that runs code** |
| Literal | 1. A name for a value; used throughout a program 2. It is a device, like a peripheral 3. **A specific value, like 1 or “hello”** 4. A type of data that can be stored |
| Variable | 1. **A name for a value; used throughout a program** 2. It is a device, like a peripheral 3. A specific value, like 1 or “hello” 4. A type of data that can be stored |
| RGB | 1. The devices attached to CodeX 2. A debugging technique 3. **The colors that make up a single pixel** 4. The “brain” of the computer |
| Sequential | 1. A decision point in code; has a condition 2. Repeating a block code, subject to a condition 3. An expression that evaluates to True or False 4. **Code that runs one line after another in order** |
| Branching | 1. **A decision point in code; has a condition** 2. Repeating a block code, subject to a condition 3. An expression that evaluates to True or False 4. Code that runs one line after another in order |
| Readability | 1. Notes in code that explain what the code does, ignored by the computer 2. Creating and using functions so the code can be reused 3. A numerical representation of an analog signal, represented in increments 4. **Adding blank lines and comments to code so it is easy to understand** |
| Comments | 1. **Notes in code that explain what the code does, ignored by the computer** 2. Creating and using functions so the code can be reused 3. A numerical representation of an analog signal, represented in increments 4. Adding blank lines and comments to code so it is easy to understand |

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| **Unit 1 Concepts and Coding (Kahoot Review)** | |
| What does this code do? | 1. Turns on the CodeX LEDs 2. Imports the \* from CodeX 3. Provides access to built-in Codex code 4. Moves the code to computer memory |
| What does this code do? | 1. Turn pixel 0 RED for 1 second and then GREEN for 1 second 2. Turn pixel 0 RED very quickly and then GREEN 3. Turn pixel 0 GREEN 4. Turn pixel 0 RED |
| What does this code do? | 1. Display HAPPY for 1 second and then SAD for 1 second 2. Display HAPPY very quickly and then display SAD 3. Display only the SAD image 4. Display only the HAPPY image |
| What does this code do? | 1. Puts the CPU in sleep mode for 1 second 2. Pauses program execution for 1 second 3. Assigns the value 1 to the variable delay 4. Sets the sleep to 1 |
| What does this code do? | 1. Puts the CPU in sleep mode for 1 second 2. Pauses program execution “delay” seconds 3. Assigns sleep the value delay 4. Causes an error |
| Which function will change an integer to a string? | 1. str(15) 2. int(15) 3. string(15) 4. 15.str() |
| What is the result if the user presses button A? | 1. The first pixel turns GREEN 2. The first pixel turns RED 3. The last pixel turns GREEN 4. The first pixel turns GREEN and the last pixel turns RED |
| What is the result if the user presses button A? | 1. The display screen turns WHITE 2. The display screen turns BLACK 3. Nothing will happen; the block is skipped 4. An error |
| What does this line of code do? | 1. Plays the audio file “roll” 2. Assigns the value “sounds/roll” to a variable named ‘play\_it’ 3. Uploads the audio file ‘roll’ into the CodeX sounds folder 4. Causes an error |
| What does this line of code do? | 1. Plays the audio file “roll” 2. Assigns the value “sounds/roll” to a variable named ‘play\_it’ 3. Uploads the audio file ‘roll’ into the CodeX sounds folder 4. Causes an error |
| This code segment is an example of: | 1. Randomization 2. Selection 3. Sequencing 4. Iteration |
| This code segment is an example of: | 1. Randomization 2. Selection 3. Sequencing 4. Iteration |
| What is the data type of this value: ‘CodeX’ | 1. Integer 2. Float 3. String 4. Boolean |
| What is the data type of this value: 3.1416 | 1. Integer 2. Float 3. String 4. Boolean |
| What is the data type of this value: False | 1. Integer 2. Float 3. String 4. Boolean |

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| **Unit 1 Concepts and Coding (Unit 1 Exam)** | |
| What does this code do? | 1. Turns on the CodeX LEDs 2. **Provides access to built-in CodeX code** 3. Moves the code to computer memory 4. Imports \* from CodeX |
| What does this code do? | 1. **Pixel 0 turns RED for 1 second and then GREEN for 1 second** 2. Pixel 0 turns RED very quickly and then GREEN 3. Pixl 0 turns GREEN 4. Pixel 0 turns RED |
| What does this code do? | 1. Displays HAPPY image for 1 second and then SAD image for 1 second 2. **Displays HAPPY image very quickly and then SAD image** 3. Display only the SAD image 4. Display only the HAPPY image |
| What does this code do? | 1. **Assigns the value 1 to the variable “delay”** 2. Sets the sleep to 1 3. Pauses program execution for 1 second 4. Puts the CPU in sleep mode for 1 second |
| What does this code do? | 1. Assigns the variable “sleep” the value “delay” 2. Causes an error 3. **Pauses program execution for “delay” seconds** 4. Puts the CPU in sleep mode for “delay” seconds |
| Which function will change (or convert) an integer to a string? | 1. int(4) 2. **str(4)** 3. string(4) 4. str = “4” |
| What is the result if the user presses BUTTON B? | 1. The first pixel turns GREEN 2. The first pixel turns RED 3. **The last pixel turns RED** 4. The first pixel turns GREEN and the last pixel turns RED |
| What is the result if the user pressed BUTTON B? | 1. **The display screen turns WHITE** 2. The display screen turns BLACK 3. Nothing will happen; the block is skipped 4. An error |
| What does this code do? | 1. Plays the audio file “roll” 2. **Assigns the value “sounds/roll” to the variable “play\_it”** 3. Uploads the audio file “roll” into the CodeX sounds folder 4. Causes an error |
| What does this code do? | 1. **Plays the audio file “roll”** 2. Assigns the value “sounds/roll” to the variable “play\_it” 3. Uploads the audio file “roll” into the CodeX sounds folder 4. Causes an error |
| The code is an example of: | 1. Sequencing 2. **Selection** 3. Randomization 4. Iteration |
| The code is an example of: | 1. **Sequencing** 2. Selection 3. Randomization 4. Iteration |
| What is the data type of this value: 12 | 1. Float 2. String 3. **Integer** 4. Boolean |
| What is the data type of this value: True | 1. Float 2. String 3. Integer 4. **Boolean** |
| What is the data type of this value: “coding” | 1. Float 2. **String** 3. Integer 4. Boolean |

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| **Questions for Supplemental Lessons** | |
| **Vocabulary:** Select the best computer science definition for each vocabulary word | |
| Function | 1. The kind of information stored in a variable 2. The process of removing characteristics to focus on essential elements 3. An expression that evaluates to True or False 4. A named set of instructions that accomplishes a task |
| Abstraction | 1. The kind of information stored in a variable 2. The process of removing characteristics to focus on essential elements 3. An expression that evaluates to True or False 4. A named set of instructions that accomplishes a task |
| tuple | 1. A little more than a triple 2. A type of decision structure 3. The data type of a triplet 4. The value passed to a parameter |
| **Coding and Concept Questions** | |
| Which is NOT a reason to create a function? | 1. Simplify code 2. Prevent the user from changing the code 3. Eliminate duplicate code 4. Make a section of code adaptable |
| What line of code creates a function? | 1. def new\_function(): 2. new\_function(): 3. new\_function() 4. def new\_function |
| What line of code calls a function? | 1. def new\_function(): 2. new\_function(): 3. new\_function() 4. def new\_function |
| In this RGB triplet, which color is 100?  my\_color = (50, 100, 150) | 1. RED 2. GREEN 3. BLUE 4. YELLOW |
| What line of code assigns a tuple to a variable? | 1. new\_var = RGB 2. new\_var = 100 3. new\_var = pixels.set() 4. new\_var = (47, 52, 145) |
| In this line of code, the 10 represents: | 1. The pixel to light 2. The amount of GREEN 3. The brightness 4. The color |
| The indicted numbers in the line of code are: | 1. Arguments 2. Parameters 3. Functions 4. A tuple |
| What are the possible values of rand\_num? | 1. All numbers between 1 and 10 2. Integers between 0 and 9 3. Integers between 1 and 10 4. Either a 0 or a 10 |
| What line of code will generate a random number between 1 and 100? | 1. rand\_num(100) 2. rand\_num = randrange(1, 101) 3. rand\_num = randrange(100) 4. rand\_num = randrange(1, 100) |
| What line of code will turn off the first pixel? | 1. pixels.set(0, BLACK) 2. pixels.set(0, OFF) 3. pixels.off(0) 4. pixels.set(OFF, 0) |