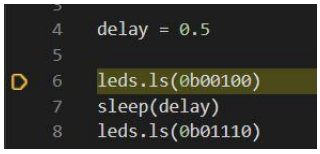
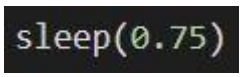
Review Kahoots for Unit 1

Mission 2 (Introduction to CodeBot)	
What should you do before handling the CodeBot?	a) Clean it with wet wipes b) Rub your feet on carpet **c) Touch some grounded metal** d) Put in batteries
What lets your computer communicate with the CodeBot?	a) Peripherals b) The motors c) import botcore **d) The USB cable**
What is the computer science definition of “PERIPHERAL”?	a) The “brain” of the computer that executes code b) A 3D environment that lets you see the robot move in a virtual world **c) A device that gives input or output to a computer** d) A computer on wheels with built-in sensors
What is the computer science definition of “CODE”?	**a) Instructions to the computer** b) A way to encode messages c) Problems in a program that need to be fixed d) A computer on wheels with built-in sensors
What is the computer science definition of “IMPORT”?	a) Instructions to the computer **b) A command that provides access to a module of built-in functions** c) Devices that give input or output to a computer d) A computer on wheels with built-in sensors
Python is case sensitive. This means:	a) “Number” is the same as “number” **b) “Number” is not the same as “number”** c) Punctuation isn’t important d) Capitalization doesn’t matter
What code will let you access LEDs functions?	a) from botcore b) import leds **c) from botcore import leds** d) from botcore access leds
What code will turn on the far-right led?	**a) leds.user_num(0, True)** b) leds.user_num(7, True) c) leds.user(num_1, True) d) user.leds_num(0, False)
What code will turn off the far-left led?	a) leds.user_num(0, False) **b) leds.user_num(7, False)** c) leds.user(num_7, False) d) user.leds_num(7, True)
Boolean values are:	a) On or Off b) 0 or 1 **c) True or False** d) Numbered for leds

Mission 3 Time and Motion (Objectives 1-6)	
What is the computer science definition of “LITERAL”?	a) A name to data that can then be used in a program **b) An actual value, like 1 or 1.5** c) Something that is exact d) Data that is passed to a function when it is called
What is the computer science definition of “VARIABLE”?	**a) A name to data that can then be used in a program** b) An actual value, like 1 or 1.5 c) Something that can change d) Data that is passed to a function when it is called
What is the computer science definition of “ARGUMENT”?	a) A name to data that can then be used in a program b) An actual value, like 1 or 1.5 c) When programmers collaborate **d) Data that is passed to a function when it is called**
What is the computer science definition of “BINARY”?	a) A choice between two options b) A way to count with numbers **c) The two states of electric circuits: On or Off** d) A group of 8 bits, used in programming
What is the computer science definition of “BYTE”?	**a) A group of 8 binary digits** b) A way to count with numbers c) The two states of electric circuits: On or Off d) Chunking programming code into smaller parts
When you use the debugger the line of code that is highlighted: 	**a) Will run the next time you press STEP** b) Ran the last time you pressed STEP c) Is currently running d) Will stop the program
Why would you add a sleep() command after turning on an LED?	a) So it will turn on **b) So you can see it turn on before anything else happens** c) To give the LED time to cool off d) You shouldn’t add it because it will cause an error
What does this statement do? 	**a) Gives the code access to the sleep function from the time module** b) Gives the code access to the time function from the sleep module c) Is necessary or the program won’t run d) Allows the code to sleep from time to time
This statement will: 	a) Pause the program for .75 milliseconds **b) Pause the program for .75 seconds** c) Turn off the LED for .75 seconds d) Cause an error

Which LED does the following code turn ON: `leds.user(0b00000010)`	a) User LED 2 b) Line Sensor LED 2 **c) User LED 1** d) Line Sensor LED 7

Mission 3 Time and Motion (Objectives 7-9)	
What is the computer science definition of "COMMENTS"?	**a) Notes in the code about what you are doing** b) Feedback from another programmer c) Required statements at the top of your code d) Imports the modules so you can use built-in functions
What is the computer science definition of "ALGORITHM"?	a) Adding blank lines and spaces to your code b) Chunking your code into bite-sized pieces **c) A precise sequence of step-by-step instructions** d) Accessing built-in functions
What are two ways to add readability to your code:	a) Algorithms and divide-and-conquer b) Importing modules and using variables c) Binary and Boolean **d) Comments and whitespace**
What does this code do? `delay = 1`	a) Sets the sleep to 1 b) Pauses the program execution for 1 second c) Puts the CodeBot to sleep for 1 second **d) Assigns the value 1 to the variable "delay"**
What does this code do? `sleep(delay)`	a) Assigns the variable "sleep" the value "delay" **b) Pauses the program execution for "delay" seconds** c) Puts CodeBot to sleep for "delay" seconds d) Causes an error
What line of code will import all built-in functions from a module or library?	a) `import *` **b)** `from botcore import *` c) `import from botcore *` d) `from botcore`
What code will turn on the motors?	a) **motors.enable(True)** b) motors.on(True) c) enable.motors(False) d) motors.turn_on()
What code will turn off the motors	a) disable.motors(True) b) motors.on(False) **c) motors.enable(False)** d) motors.turn_off()

What will this code do?
`motors.run(LEFT, 50)`
`motors.run(RIGHT, -50)`
	a) Move the 'bot forward
	b) Make the 'bot turn
	c) Make the 'bot go backward
	d) Cause the 'bot to stop

What will this code do?
`motors.run(LEFT, 50)`
`motors.run(RIGHT, 50)`
	a) Move the 'bot forward
	b) Make the 'bot turn
	c) Make the 'bot go backward
	d) Cause the 'bot to stop

Mission 3 Time and Motion (Objectives 10-11)	
What is the computer science definition of “BRANCHING”?	a) A Boolean value; either True or False, often the result of a comparison **b) Decision points in code; taking a different path depending on a condition** c) A way to structure blocks of code by offsetting the block four spaces d) A precise sequence of step-by-step instructions
What is the computer science definition of “CONDITION”?	**a) A Boolean value; either True or False, often the result of a comparison** b) Decision points in code; taking a different path depending on a Boolean c) A way to structure blocks of code by offsetting the block four spaces d) A precise sequence of step-by-step instructions

What happens if Button-0 was pressed?
`if buttons.was_pressed(0):`
`  leds.user_num(0, True)`
`elif buttons.was_pressed(1):`
`  leds.user_num(7, True)`
`else:`
`  leds.user(0b00000000)`
	a) The user LED 0 turns on
	b) All user LEDs turn off
	c) The user LED 7 turns on
	d) LED 0 turns on, then LED 7 turns on, then they both turn off

What happens if Button-1 was pressed?
`if buttons.was_pressed(0):`
`  leds.user_num(0, True)`
`elif buttons.was_pressed(1):`
`  leds.user_num(7, True)`
`else:`
`  leds.user(0b00000000)`
	a) The user LED 0 turns on
	b) All user LEDs turn off
	c) The user LED 7 turns on
	d) LED 0 turns on, then LED 7 turns on, then they both turn off

What happens if no button was pressed?
`if buttons.was_pressed(0):`
`  leds.user_num(0, True)`
`elif buttons.was_pressed(1):`
`  leds.user_num(7, True)`
`else:`
`  leds.user(0b00000000)`
	a) The user LED 0 turns on
	b) All user LEDs turn off
	c) The user LED 7 turns on
	d) LED 0 turns on, then LED 7 turns on, then they both turn off

What happens if Button-0 was pressed?
`if buttons.was_pressed(0):`
`  motors.enable(True)`
`else:`
`  motors.enable(False)`
	a) The motors are turned off
	b) The motors are turned on
	c) The motors are turned on and then off
	d) Nothing happens

What happens if Button-1 was pressed?
`if buttons.was_pressed(0):`
`  motors.enable(True)`
`else:`
`  motors.enable(False)`
	a) The motors are turned off
	b) The motors are turned on
	c) The motors are turned on and then off
	d) Nothing happens

What happens if no button was pressed?
`if buttons.was_pressed(0):`
`  motors.enable(True)`
`else:`
`  motors.enable(False)`
	a) The motors are turned off
	b) The motors are turned on
	c) The motors are turned on and then off
	d) Nothing happens

What happens if Button-0 was pressed?
`if buttons.was_pressed(1):`
`  leds.user(0b11111111)`
	a) All user LEDs turn on
	b) All user LEDs turn off
	c) Nothing happens
	d) All LEDS turn on and then off

What happens if Button-1 was pressed?
`if buttons.was_pressed(1):`
`  leds.user(0b11111111)`
	a) All user LEDs turn on
	b) All user LEDs turn off
	c) Nothing happens
	d) All LEDS turn on and then off

Unit 1 Vocabulary Review/Test (Missions 1-3: All questions are the computer science definition of ...) *(compilation of 13 terms from previous reviews, plus two more terms – same terms for review and test)*	
Peripheral	a) The “brain” of the computer that executes code b) A 3D environment that lets you see the robot move in a virtual world **c) A device that gives input or output to a computer** d) A computer on wheels with built-in sensors
LED	a) The “brain” of the computer that executes code b) A device that gives input to a computer c) A computer on wheels with built-in sensors **d) tiny and efficient electronic components that produce light**
Code	**a) Instructions to the computer** b) A way to encode messages c) Problems in a program that need to be fixed d) A computer on wheels with built-in sensors
Import	a) Instructions to the computer **b) A command that provides access to a module of built-in functions** c) Devices that give input or output to a computer d) A computer on wheels with built-in sensors
CPU	**a) The “brain” of the computer that executes code** b) A device that gives input to a computer c) A computer on wheels with built-in sensors d) tiny and efficient electronic components that produce light
Literal	a) A name to data that can then be used in a program **b) An actual value, like 1 or 1.5** c) Something that is exact d) Data that is passed to a function when it is called

Variable	**a) A name to data that can then be used in a program** b) An actual value, like 1 or 1.5 c) Something that can change d) Data that is passed to a function when it is called
Argument	a) A name to data that can then be used in a program b) An actual value, like 1 or 1.5 c) When programmers collaborate **d) Data that is passed to a function when it is called**
Boolean	a) On or Off b) 0 or 1 **c) True or False** d) Numbered for leds
Binary	a) A choice between two options b) A way to count with numbers **c) The two states of electric circuits: On or Off** d) A group of 8 bits, used in programming
Byte	**a) A group of 8 binary digits** b) A way to count with numbers c) The two states of electric circuits: On or Off d) Chunking programming code into smaller parts
Comments	**a) Notes in the code about what you are doing** b) Feedback from another programmer c) Required statements at the top of your code d) Imports the modules so you can use built-in functions
Algorithm	a) Adding blank lines and spaces to your code b) Chunking your code into bite-sized pieces **c) A precise sequence of step-by-step instructions** d) Accessing built-in functions
Branching	a) A Boolean value; either True or False, often the result of a comparison **b) Decision points in code; taking a different path depending on a condition** c) A way to structure blocks of code by offsetting the block four spaces d) A precise sequence of step-by-step instructions
Condition	**a) A Boolean value; either True or False, often the result of a comparison** b) Decision points in code; taking a different path depending on a Boolean c) A way to structure blocks of code by offsetting the block four spaces d) A precise sequence of step-by-step instructions

Unit 1 Concepts and Coding Test (Missions 1-3) / *(review questions with modifications)*	
Python is case sensitive. This means:	a) Capitalization doesn't matter b) Punctuation isn't important c) "Delay" is the same as "delay" **d) "Delay" is not the same as "delay"**
What are two ways to add readability to your code:	a) **Comments and whitespace** b) Algorithms and divide-and-conquer c) Binary and Boolean d) Importing modules and using variables
What line of code will import all built-in functions from a module or library?	a) `from botcore` **b)** `import from botcore *` c) `from botcore import *` d) `import *`
What code will turn on the far-left user LED?	a) leds.user_num(0, True) **b) leds.user_num(7, True)** c) leds.user(num_8, True) d) user.leds_num(7, True)
What code will turn off the far-right user LED?	**a) leds.user_num(0, False)** b) leds.user_num(1, False) c) leds.user(num_8, False) d) user.leds_num(7, False)
This statement will: `sleep(1.25)`	a) Cause an error b) Pause the program for 1.25 milliseconds **c) Pause the program for 1.25 seconds** d) Turn on the LED for 1.25 seconds
Which LED does the following code turn ON: `leds.user(0b00001000)`	a) User LED 2 **b) User LED 3** c) User LED 4 d) User LED 5
What does this code do? `delay = 0.25`	a) Pauses the program execution for 0.25 seconds b) Sets the sleep to 0.25 c) Puts the CodeBot to sleep for 0.25 seconds **d) Assigns the value 0.25 to the variable "delay"**
What does this code do? `sleep(delay)`	a) Puts CodeBot to sleep for "delay" seconds b) Assigns the value "delay" to the variable "sleep" **c) Pauses the program execution for "delay" seconds** d) Causes an error
What code will turn on the motors?	a) enable.motors(True) b) motors.turn_on() c) **motors.enable(True)** d) motors.on(True)
What code will turn off the motors	a) **motors.enable(False)** b) motors.turn_off() c) motors.on(False) d) disable.motors(True)

What will this code do?
`motors.run(LEFT, -50)`
`motors.run(RIGHT, -50)`
	a) Move the ‘bot forward
	b) Make the ‘bot turn
	c) Make the ‘bot go backward
	d) Cause the ‘bot to stop

What will this code do?
`motors.run(LEFT, -50)`
`motors.run(RIGHT, 50)`
	a) Move the ‘bot forward
	b) Make the ‘bot turn
	c) Make the ‘bot go backward
	d) Cause the ‘bot to stop

What happens if Button-0 was pressed?
`if buttons.was_pressed(0):`
`  motors.enable(True)`
`elif buttons.was_pressed(1):`
`  motors.enable(False)`
`else:`
`  motors.run(LEFT, 50)`
`  motors.run(RIGHT, 50)`
	a) The ‘bot moves forward
	b) The motors are turned off
	c) The motors are turned on
	d) The motors are turned on, the ‘bot moves forward, and then the motors are turned off

What happens if Button-1 was pressed?
`if buttons.was_pressed(0):`
`  motors.enable(True)`
`elif buttons.was_pressed(1):`
`  motors.enable(False)`
`else:`
`  motors.run(LEFT, 50)`
`  motors.run(RIGHT, 50)`
	a) The ‘bot moves forward
	b) The motors are turned off
	c) The motors are turned on
	d) The motors are turned on, the ‘bot moves forward, and then the motors are turned off

What happens if no button was pressed?
`if buttons.was_pressed(0):`
`  motors.enable(True)`
`elif buttons.was_pressed(1):`
`  motors.enable(False)`
`else:`
`  motors.run(LEFT, 50)`
`  motors.run(RIGHT, 50)`
	a) The ‘bot moves forward
	b) The motors are turned off
	c) The motors are turned on
	d) The motors are turned on, the ‘bot moves forward, and then the motors are turned off

What happens if Button-0 was pressed?
`if buttons.was_pressed(0):`
`  leds.user_num(3, True)`
`  sleep(1)`
`  leds.user_num(3, False)`
	a) A user LED turns on
	b) A user LED turns on and then turns off
	c) A user LED turns off
	d) Nothing happens

What happens if Button-1 was pressed?
`if buttons.was_pressed(0):`
`  leds.user_num(3, True)`
`  sleep(1)`
`  leds.user_num(3, False)`
	a) A user LED turns on
	b) A user LED turns on and then turns off
	c) A user LED turns off
	d) Nothing happens

What happens if Button-1 was pressed?
`if buttons.was_pressed(1):`
`  leds.ls(0b11111)`
`  leds.user(0b00000000)`
`else:`
`  leds.ls(0b00000)`
`  leds.user(0b11111111)`
	a) Line sensor LEDs are turned on and user LEDs are turned off
	b) User LEDs are turned on and line sensor LEDs are turned off
	c) User LEDs and line sensor LEDs are turned on and then off
	d) Nothing happens

What happens if no button was pressed?
`if buttons.was_pressed(1):`
`  leds.ls(0b11111)`
`  leds.user(0b00000000)`
`else:`
`  leds.ls(0b00000)`
`  leds.user(0b11111111)`
	a) Line sensor LEDs are turned on and user LEDs are turned off
	b) User LEDs are turned on and line sensor LEDs are turned off
	c) User LEDs and line sensor LEDs are turned on and then off
	d) Nothing happens