

Mission 6 - Robot Metronome Review Questions

<p>Select the computer science definition of: LITERAL</p>	<ul style="list-style-type: none"> a. The status of a system with transitions b. A name to which you assign some data c. An actual value, like 1 or "hello" or True d. The position of an item in a list
<p>Select the computer science definition of: STATE</p>	<ul style="list-style-type: none"> a. The status of a system with transitions b. A name to which you assign some data c. An actual value, like 1 or "hello" or True d. The position of an item in a list
<p>Select the computer science definition of: INDEX</p>	<ul style="list-style-type: none"> a. The status of a system with transitions b. A name to which you assign some data c. An actual value, like 1 or "hello" or True d. The position of an item in a list
<p>What is the code for an infinite loop?</p>	<ul style="list-style-type: none"> a. while count < 10: b. while True: c. while count == 0: d. if True:
<p>What are the values of the Boolean data type?</p>	<ul style="list-style-type: none"> a. 0 and 1 b. True and False c. Anything in range(10) d. and, or, not
<p>Given the code, what is the value of delay?</p> <pre>delay = 1 / 4 + 40</pre>	<ul style="list-style-type: none"> a. 40.25 b. 44.1 c. 1/44 d. 42.5
<p>Given the code, what is the value of sound_on?</p> <pre>sound_on = True sound_on = not sound_on</pre>	<ul style="list-style-type: none"> a. Not b. True c. False d. Causes an error
<p>What does the not operator do?</p>	<ul style="list-style-type: none"> a. Returns True if both operands are true b. Returns True if either operand is true c. Toggles a Boolean value d. Toggles an integer value
<p>What code turns on an LED if the state variable is False?</p>	<ul style="list-style-type: none"> a. leds.user(0) b. leds.user(sound_on) c. leds.pwr(sound_on) d. leds.pwr(not sound_on)
<p>Given the code that uses bit-shift, what is the value of user_leds?</p> <pre>user_leds = 0b00001 user_leds = 1 << 3</pre>	<ul style="list-style-type: none"> a. 0b00100 b. 0b01000 c. 0b10000 d. Causes an error
<p>What code correctly checks if a variable is the same as a constant?</p>	<ul style="list-style-type: none"> a. if select = 1: b. if select == 1: c. select = 1 d. select == 1

<p>What code correctly assigns a literal to a variable?</p>	<ul style="list-style-type: none"> a. if select = 1: b. if select == 1: c. select = 1 d. select == 1
<p>What does this code do?</p> <pre>if tempo_select == len(tempo_list): tempo_select = 0</pre>	<ul style="list-style-type: none"> a. Updates the variable to 0 if the index limit is reached b. Updates the variable to 0 if the index limit is exceeded c. Updates the variable to the len when it is 0 d. Updates the len() when it is the same as the variable
<p>What does this code do?</p> <pre>if buttons.was_pressed(): sound_on = not sound_on</pre>	<ul style="list-style-type: none"> a. Toggles the state variable when BTN-0 is pressed b. Toggles the state variable when BTN-0 is not pressed c. Turns on the LED when the button is pressed d. Turns off the LED when the button is pressed
<p>This code doesn't work correctly. How can it be fixed?</p> <pre>while True: leds.user(0b11111111) sleep(0.1) leds.user(0) sleep(0.1)</pre>	<ul style="list-style-type: none"> a. Change leds.user(0) to leds.user(0b00000000) b. Change sleep(0.1) to sleep(1) c. Remove the indenting from the second and third lines d. Add indenting to the fourth and fifth lines
<p>What code defines a list?</p>	<ul style="list-style-type: none"> a. my_list = (10, 20, 30, 40) b. my_list = [10, 20, 30, 40] c. my_list(10, 20, 30, 40) d. my_list = '10, 20, 30, 40'
<p>What is the first index of a list?</p>	<ul style="list-style-type: none"> a. 0 b. 1 c. A d. Depends on the list
<p>How do you access an item in a list?</p>	<ul style="list-style-type: none"> a. my_list(index) b. index(my_list) c. my_list[index] d. my_list.index()
<p>Given the code, what is the value of number?</p> <pre>my_list = [10, 20, 30, 40] number = my_list[2]</pre>	<ul style="list-style-type: none"> a. 2 b. 10 c. 20 d. 30
<p>What error does this code avoid?</p> <pre>if tempo_select == len(tempo_list): tempo_select = 0</pre>	<ul style="list-style-type: none"> a. Undefined error b. Index out of range error c. Attribute error d. Name error