

Mission 11 - Airfield Ops Review Questions

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| Select the computer science definition of: INCREMENT | <ul style="list-style-type: none">a. A short way of writing a common expressionb. Subtracting one from a variablec. Adding one to a variabled. Getting the integer remainder of a division problem |
| Select the computer science definition of: DECREMENT | <ul style="list-style-type: none">a. A short way of writing a common expressionb. Subtracting one from a variablec. Adding one to a variabled. Getting the integer remainder of a division problem |
| What does this expression evaluate to? <code>3 // 2</code> | <ul style="list-style-type: none">a. 1b. 2c. 1.5d. 2/3 |
| What does this expression evaluate to? <code>8 % 5</code> | <ul style="list-style-type: none">a. 1.6b. .6c. 3d. 1 |
| What does this expression evaluate to? <code>2**3</code> | <ul style="list-style-type: none">a. 6b. 8c. 9d. .66667 |
| What is the correct code for detecting a white line? | <ul style="list-style-type: none">a. <code>vals = ls.check(2000, True)</code>b. <code>vals = ls.check(2000, False)</code>c. <code>vals = ls.check(2000)</code>d. <code>vals = ls.read(2000, True)</code> |
| What variable is used to track the state of the line sensor detection? | <ul style="list-style-type: none">a. <code>was_line = False</code>b. <code>was_line = 0</code>c. <code>count = True</code>d. <code>count = 0</code> |
| What variable is used to keep track of the number of lines crossed? | <ul style="list-style-type: none">a. <code>was_line = False</code>b. <code>was_line = 0</code>c. <code>count = True</code>d. <code>count = 0</code> |
| Which is an example of an augmented assignment? | <ul style="list-style-type: none">a. <code>count += 1</code>b. <code>lites = [True] * number</code>c. <code>[ls.read(i)>2000 for i in range(5)]</code>d. <code>count = count + 1</code> |
| Given this code, what is printed? <pre>is_line = True was_line = False if is_line and not was_line: print('Detected') else: print('Not detected') was_line = is_line</pre> | <ul style="list-style-type: none">a. Nothing is printedb. Detectedc. Not detectedd. An error occurs |

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| <p>Given this code, what is the final value of <code>was_line</code>?</p> <pre>is_line = True was_line = False if is_line and not was_line: print('Detected') else: print('Not detected') was_line = is_line</pre> | <ul style="list-style-type: none">a. Trueb. Falsec. Noned. 2 |
| <p>Given this code, what will be the result of the if statement?</p> <pre>count = 16 remainder = count % 8 if remainder == 0: spkr.pitch(440) elif remainder == 3: spkr.off()</pre> | <ul style="list-style-type: none">a. Speaker turns onb. Speaker turns offc. Speaker turns on and then offd. Nothing; neither condition is True |
| <p>Given this code, what will be the result of the if statement?</p> <pre>count = 18 remainder = count % 8 if remainder == 0: spkr.pitch(440) elif remainder == 3: spkr.off()</pre> | <ul style="list-style-type: none">a. Speaker turns onb. Speaker turns offc. Speaker turns on and then offd. Nothing; neither condition is True |
| <p>Given this code, what is the result of the if statement?</p> <pre>count = 8 next_marker = 3 marker_dash = 2**next_marker if count == marker_dash: leds.prox(3) elif count == marker_dash + 3: leds.prox(0) next_marker += 1</pre> | <ul style="list-style-type: none">a. Nothing happens, no condition is trueb. Proximity sensors turn onc. Proximity sensors turn off and next_marker is incrementedd. Proximity sensors turn on and next_marker is decremented |

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| <p>Given this code, what is the result of the if statement?</p> <pre> count = 11 next_marker = 3 marker_dash = 2**next_marker if count == marker_dash: leds.prox(3) elif count == marker_dash + 3: leds.prox(0) next_marker += 1 </pre> | <ul style="list-style-type: none"> a. Nothing happens, no condition is true b. Proximity sensors turn on c. Proximity sensors turn off and next_marker is incremented d. Proximity sensors turn on and next_marker is decremented |
| <p>Given this code, what will be printed?</p> <pre> new_list = [True] * 4 print(new_list) </pre> | <ul style="list-style-type: none"> a. [True] * 4 b. [True] [True] [True] [True] c. [True, True, True, True] d. An error occurs |
| <p>Given this code, which leds are turned on?</p> <pre> new_list = [True] * 2 leds.ls(new_list) </pre> | <ul style="list-style-type: none"> a. Line sensor LEDs 0, 1 b. Line sensor LEDs 4, 5 c. Line sensor LED 2 d. An error occurs |
| <p>What code turns on LEDs using a Boolean list as the argument?</p> | <ul style="list-style-type: none"> a. leds.prox(0b11) b. leds.user(0) c. leds.ls(vals) d. leds.prox(8) |
| <p>What code turns on LEDs using a binary string as the argument?</p> | <ul style="list-style-type: none"> a. leds.prox(0b11) b. leds.user(0) c. leds.ls(vals) d. leds.prox(8) |
| <p>What code turns on LEDs using an integer as the argument?</p> | <ul style="list-style-type: none"> a. leds.prox(0b11) b. leds.user(0) c. leds.ls(vals) d. leds.prox(8) |