ANSWER KEY

CODEBOT MISSION 5 LOG - Lesson 2

Pre-Mission Warm-Up	
What code reads a line sensor?	val = ls.read(0)
What do you remember about functions?	Possible answers can include: • A chunk of code you can run anytime by calling its name. • A chunk of code that you define and give a name. • Must be called before the block of code is executed. • Define a function using: def function_name(): • Call a function: function_name() • A function allows you to reuse code without retyping it.
Mission 5 Lesson 2 – Fence Patrol	
Mission 5 Objective 3	
What do you want CodeBot to do if it detects a boundary line?	Turn on the LED above the line sensor.
What code will accomplish this task?	is_detected = ls.read(0) > threshold leds.ls_num(0, is_detected)
Mission 5 Objective 4	
Explain DRY in your own words.	Answers should not use the exact wording of CodeSpace or the slides. Possible answer: DRY means that you shouldn't repeat code by just copying and pasting. Instead, write a function for the code, and you can call the function more than once. This will make it easier to make changes to the code, and also the program is easier to read.
Mission 5 Objective 5	
What do you remember about while loops that repeat a specific number of times?	Possible answers include: • Has a control variable, which is initialized first • Control variable usually starts at 0 • Control variable is used in a comparison • Control variable must be incremented inside the loop
Write a while loop that will repeat exactly 5 times?	n = 0 while n < 5: n = n + 1
Mission 5 Quiz	
Take the quiz. Which questions did you miss? Are there any concepts you need to review?	Answers will vary. They might want to review Lesson 1 first. Two of the questions are about the reflective values of surfaces. If students have done a good job with taking notes and filling out the chart, they should do well.

Post-Mission Reflection	
Why do programmers use functions in their code?	Answers will vary. Points to consider: • Functions eliminate the need to copy and paste code. • Functions reduce code repetition. • Functions allow you to write code once and then call it multiple times. • A function with a parameter can be used for many things, like all the LEDs or line sensors, without repetition. • Functions make it easier to modify code later.