AP CSP Python with CodeX **Mission 4 Obj 8-10 & Functions Assignment**	**Name:**
Getting Started	
This lesson continues Mission 4. It includes additional instructions to create and use functions in the program. **During this lesson you will complete the last two mission goals**.	
Mission 4 : Display Games Objectives 8-10	
Complete Objective 8 You will not use CodeX for this objective. Use the 3D simulator to find the buttons.	Space for notes as needed
Complete Objective 9 Read ALL the information. What are two ways to access the CodeX buttons? What is the difference?	The first way is buttons.was_pressed(BTN_A). It checks if the button has been pressed since the last check. The second way is buttons.is_pressed(BTN_A). It checks if the button is currently being pressed.
Take the quiz. How did you do? Is there a concept you need to review?	Answers will vary.
Complete Objective 10 Which buttons will you use for the game, and in what order?	Answers will vary. A possible answer is: BTN_A, BTN_U, BTN_D, BTN_B
Mission 4 : Functions	
Slides 1-6. What is a function? What is procedure abstraction? What are some reasons to use functions?	A function is a named set of instructions that accomplishes a task. Procedural abstraction is breaking down a complex task into smaller, more manageable tasks, like procedures. Some reasons for creating a function are to break down the task into smaller subtasks, to simplify the code, and to eliminate duplicate code.
Slides 7-14. Follow the instructions in the slides to create and call functions in the Display program. Take notes as needed.	Space for notes as needed.

EXTENSIONS

Still have time? Make modifications to your code. Come up with your own idea, or try one of these:

- Fill the screen with red or green (or a short delay) in addition to changing a pixel
- Add an image at the end of the game
- Instead of lighting a pixel, display a message of “Right” or “Wrong”. Extend the game to more than 4 questions.
- Add a function for turning off all pixels and clearing the screen that is called at the end of the program.

Submit the assignment and the completed Display_functions program to the teacher.