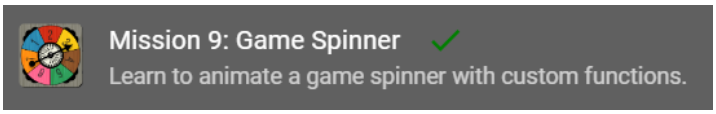
Name:

Mission 9 Assignment – Game Spinner

In this project you will create a game spinner that shows a realistic spinning arrow when a button is pressed. Think of the applications!	

You will create code during this lesson. When you encounter an error, make a note of what is happening and **document your debugging** process in the **table** below.

1. Read the introduction and complete Objective #1. You do not need to create the list; it is already available to you. Use your knowledge from Mission 7 and Mission 8 to select a random arrow from the list. Use CodeTrek if you need to, but try to do this part on your own.

2. Complete the Quiz and Objective #2. Make sure you read the instructions carefully. Read about logical operators.

What are three logical operators? List each one and what it is used for:

Operator	Used for:

3. Complete Objective #3. This includes a new concept: functions. Read about them.

What is a function?	
How do you define a function?	
How do you call a function?	
Where should you define a function?	
What is a reason for defining a function?	

4. Complete Objective #4.

How is the variable “index” used in the spin_animation function?	
What line of code updates the variable that will end the loop?	

5. Complete the Quiz and Objective #5. Then give definitions for the following terms:

What is the definition of “simulation”?	
What is the definition of “parameter”?	
What is the definition of “argument”?	
6. Complete Objective #6. You should get an error during this objective. Use the debugger and “step in” at least 20 times until you get an error.	
What is the value of “index” when the error occurs?	
7. Complete Objective #7.	
What was the error from Objective #6?	
Why do you need two variables in the spin_animation function?	
8. Complete Objective #8.	
EXTENSION #1: Change the code so that one button spins the arrow and another button is used to exit the loop. Display a message when the loop ends.	
EXTENSION #2: Add sound - maybe a click or beep each time the Arrow moves. Check out the music.pitch() function (toolbox)	
EXTENSION #3: Make the arrows spin counter-clockwise.	
To turn in the assignment, download your code (FILE-DOWNLOAD), which will be a text file. Add your name in the filename. Then submit the file through Google Classroom or the class LMS.	

Debugging Table

As you create code, you will make mistakes. Keep track of the mistakes in the table below. Doing so will help you become a more confident programmer. Add rows to the table as needed.

Error message that is displayed	Actual bug	How you fixed it

SUCCESS CRITERIA:

- ❑ Display an Arrow in a random direction
- ❑ Detect an input- button A or B - to trigger the Arrow spin
- ❑ Animate an Arrow spinning around
- ❑ Make the Arrow gradually slow rather than stopping abruptly