

Name:

Functions, Parameters and Local Variables - Part 2

Go through the lesson on functions, parameters and local variables. Fill out the charts for each problem you complete.

A 🌶️🌶️🌶️	
What would you call the function?	<code>def roll_the_dice()</code> Answers can vary
What are the variables needed?	<code>num, delay</code>
What are the parameters?	<code>num, delay</code>
What are the local variables?	<code>none</code>
Does it need a return?	<code>no</code>
What will a function call look like?	<code>roll_the_dice(num, delay)</code> <code>roll_the_dice(num, 1)</code> <code>roll_the_dice(3, 2)</code> Or any variation

```
while True:
    # Start game with button B
    if buttons.was_pressed(BTN_B):
        # Reset the board for each game
        reset()
        # Select first random number
        num1 = random.randrange(6) + 1
        if num == 1:
            one_roll()
        elif num == 2:
            two_roll()
        elif num == 3:
            three_roll()
        elif num == 4:
            four_roll()
        elif num == 5:
            five_roll()
        else:
            six_roll()
        sleep(delay)
```

B 🌶️🌶️🌶️	
What would you call the function?	<code>def see_image()</code> Answers can vary
What are the variables needed?	<code>set_list, my_image, a_list, choice</code>
What are the parameters?	<code>set_list, choice</code>
What are the local variables?	<code>My_image</code> Note – the list (<code>a_list</code> or <code>b_list</code>) are global and do not need to be a parameters or local variables
Does it need a return?	<code>no</code>
What will a function call look like?	<code>see_image(set_list, choice)</code> <code>see_image("a", choice)</code> <code>see_image("b", 3)</code> Or any combination

```
if set_list == "a":
    my_image = a_list[choice]
else:
    my_image = b_list[choice]

if type(my_image) == tuple:
    display.fill(my_image)
else:
    display.show(my_image)

if buttons.was_pressed(BTN_R):
    choice = choice + 1
    if choice > LAST_INDEX:
        choice = 0
```

C 🌶️🌶️🌶️	
What would you call the function?	<code>def show_rolling()</code> Answers can vary
What are the variables needed?	<code>delay, num</code>
What are the parameters?	<code>delay, num</code>
What are the local variables?	<code>none</code>
Does it need a return?	<code>no</code>
What will a function call look like?	<code>show_rolling(delay, num)</code> <code>show_rolling(1, 3)</code> Or any combination

```
while True:
    num = random.randrange(sides) + 1
    if buttons.was_pressed(BTN_A):
        display.clear()
        display.draw_text("Rolling", scale=3,
            sleep(delay-0.7)
        display.draw_text("Rolling", scale=3,
            sleep(delay-0.4)
        display.clear()
        display.draw_text(str(num), scale=20,
            sleep(delay)
        display.clear()
```

Example 🌶️🌶️🌶️	
What information is used in each of the four functions?	<code>"Hold Button R"</code> <code>BTN_R</code> <code>1 (delay)</code> <code>3 (pixel)</code>
Write assignment statements for each piece of information. The first one is done for you.	<code>message = "Hold Button R"</code> <code>button = BTN_R</code> <code>delay = 1</code> <code>lite = 3</code>
What would you call the function? Write a function definition with parameters for this function:	<code>def gameplay(message, button, delay, lite)</code> ** function and parameter names can be different
Write a function call for the function:	<code>gameplay(message, button, delay, lite)</code>
The function code with multiple parameters:	The answer could be typed here, or a snippet from CodeSpace <pre>def play_game(message, button, light, delay): display.show(message) sleep(delay) pressed = buttons.is_pressed(button) if pressed: pixels.set(light, GREEN) else: pixels.set(light, RED)</pre>

Function call for your code:

The answer could be typed here, or a snippet from CodeSpace

```
# Main Program
message = "Hold Button Up"
button = BTN_U
play_game(message, button, 0, delay)
```

SUCCESS CRITERIA:

- Decide a function name for a section of code
- Determine parameters for a function
- Determine local variables for a function
- Write a function call with multiple parameters
- Write a function that has multiple parameters