AP CSP Python with CodeX
Functions with Parameters #1 Activity Guide

Name:

Review: Functions

Write three or more things you know about functions.	Answers will vary. Answers could include: • A function is a type of abstraction. • A function is procedural abstraction. • A function is a block of code with a name. • You can call a function multiple times. • A function reduces duplicated code.

Functions with Parameters #1 Examples

Go through the slides for Example #1. Take notes as needed in the space provided.	Notes as needed. – Pixels1 program (with RGB) This example introduces parameters. It discusses the relationship between argument and parameter. The example program ends with three parameters, and the use of RGB triplets as an argument.
Go through the slides for Example #2. Take notes as needed in the space provided.	Notes as needed – Billboard program The example uses a global variable as a parameter.
Go through the slides on local variables. Take notes in the space provided as needed.	Notes as needed. Notes from the slides: • Both functions with parameters also have local variables. • A local variable is declared and used only in a function.
On slide 28, you are given functions from the Pixels1_parameters program.	Identify the parameters and local variables in the first function: turn_pixels(): Parameters: Color, brightness, delay Local variables: none Identify the parameters and local variables in the second function: random_color(). Can you also identify the arguments? Parameters: none Local variables: Red, green, blue, color Write a possible function call for the two functions that are called in random_color(): random.randrange(): Red = random.randrange(256) turn_pixels(): turn_pixels(color, 100, 1)

Check for Understanding:

Function:

```
def ending(count):
    if count == 4:
        display.print("You won!")
    else:
        display.print("You lost")
```

Identify the parameters and local variables for this function.

Parameters	count
Local Variables	none

Give a possible function all for the function:

ending(count) or ending(5)