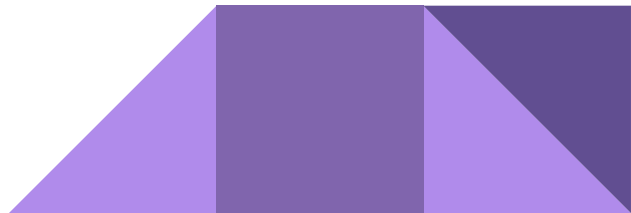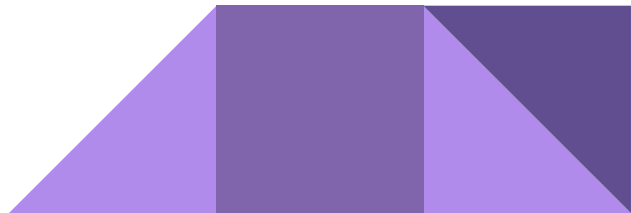# Mouse Events

What do you play?

What are some of the games y'all play?

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What methods of input do those games use? How do you interact with those games?

Interactivity in graphics!

Today we're gonna add the ability for our programs to read **mouse input**! We're going to do this via **mouse *events*** in our programs.

A **mouse event** takes place whenever the user does anything with their mouse in our program, such as moving it around or clicking.

Callback Functions

To respond to a mouse click, we need to use what's called a **callback** function.

A **callback** function is a function that gets called by our program in response to some event happening.

What we're going to do is **bind** a **callback** function to the mouse click event, so that whenever we click our mouse, the function is called.

What's that look like?

```python
def on_click(x, y):

    Put any code you want to run when the mouse is clicked
    in here

add_mouse_click_handler(on_click)
```

What's that look like?

These variables will store the (x, y) coordinates of where the user clicked!

```python
def on_click(x, y):
    Put any code you want to run when the mouse is clicked
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```

What's that look like?

```
def on_click(x, y):

    Put any code you want to run when the mouse is clicked
    in here

add_mouse_click_handler(on_click)
```

This function will bind the callback function we give it to the appropriate action - in this case, it's the mouse click!

What's that look like?

```python
def on_click(x, y):

    Put any code you want to run when the mouse is clicked
    in here

add_mouse_click_handler(on_click)
```

Here is where we put the **name** of the callback function we would like to run when the action it's bound to happens.

An Example

```python
def on_click(x, y):
    circle = Circle(20)
    circle.set_position(x, y)
    add(circle)

add_mouse_click_handler(on_click)
```