

Solution Review: Implement a Rectangle Class

This lesson covers the Python code to create a simple class with a constructor and attributes.

WE'LL COVER THE FOLLOWING ^

- Solution:

Solution:

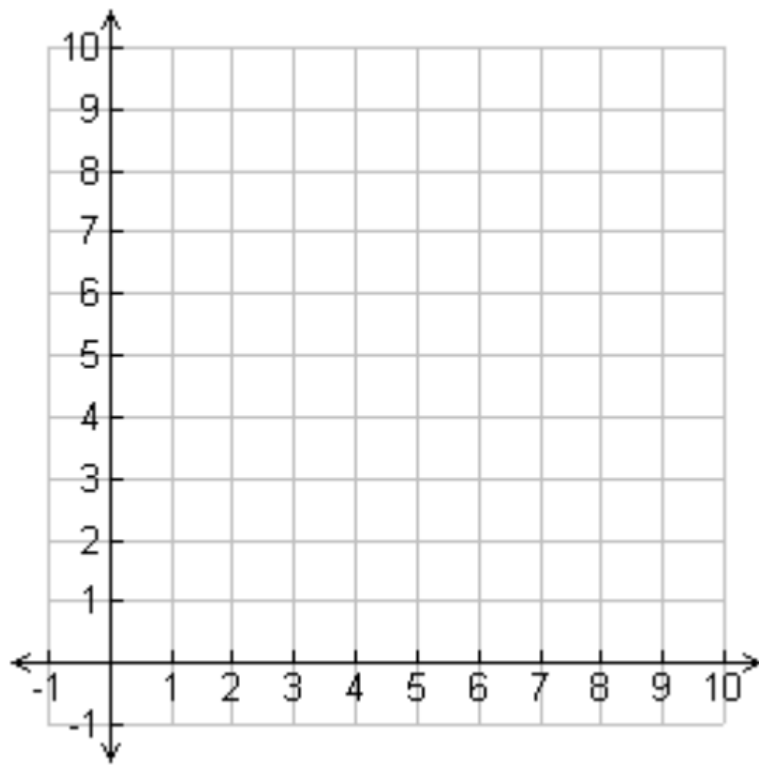
The solution to the exercise in the previous lesson was very simple. It just had a constructor with four attributes as `x1`, `y1`, `x2`, and `y2` as the coordinates of the rectangle. The constructor also checks if the **top-left** and **bottom-right** coordinates of the rectangle are correct, i.e., $x1 < x2$ and $y1 > y2$. To check the code, we created an object `r` with the coordinates (2, 7, 8, 4). The solution is shown below:

```
class Rectangle:
    def __init__(self, x1, y1, x2, y2): # class constructor
        if x1 < x2 and y1 > y2:
            self.x1 = x1 # class variable
            self.y1 = y1 # class variable
            self.x2 = x2 # class variable
            self.y2 = y2 # class variable
        else:
            print("Incorrect coordinates of the rectangle!")

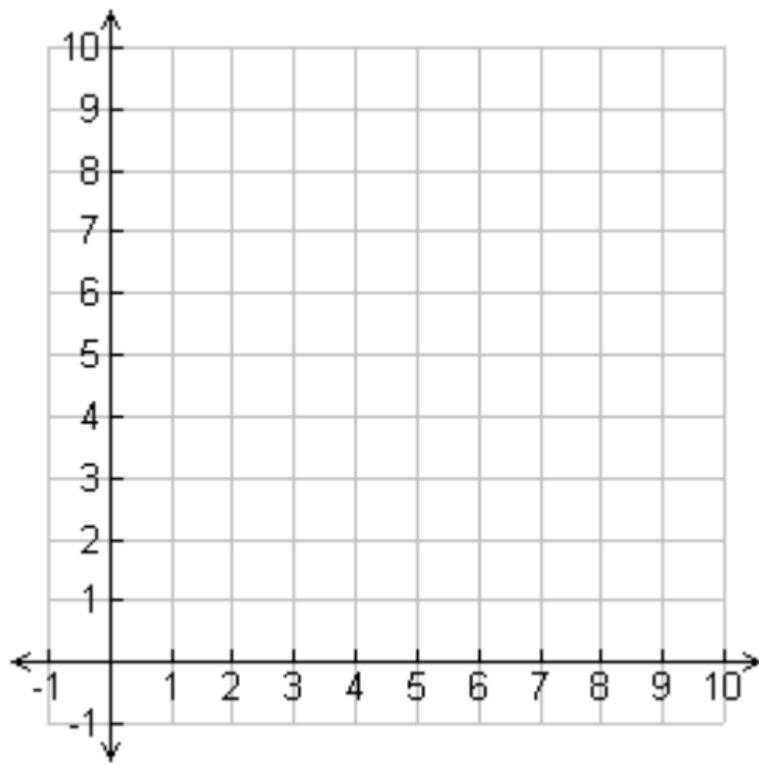
r = Rectangle(2, 7, 8, 4)
```



The creation of the rectangle `r` is illustrated in the following figure:

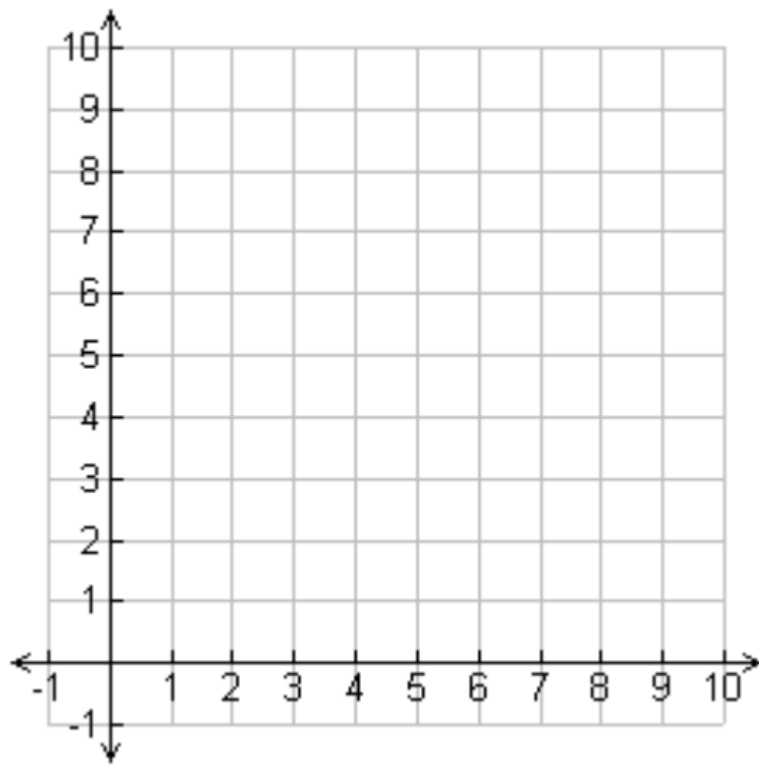


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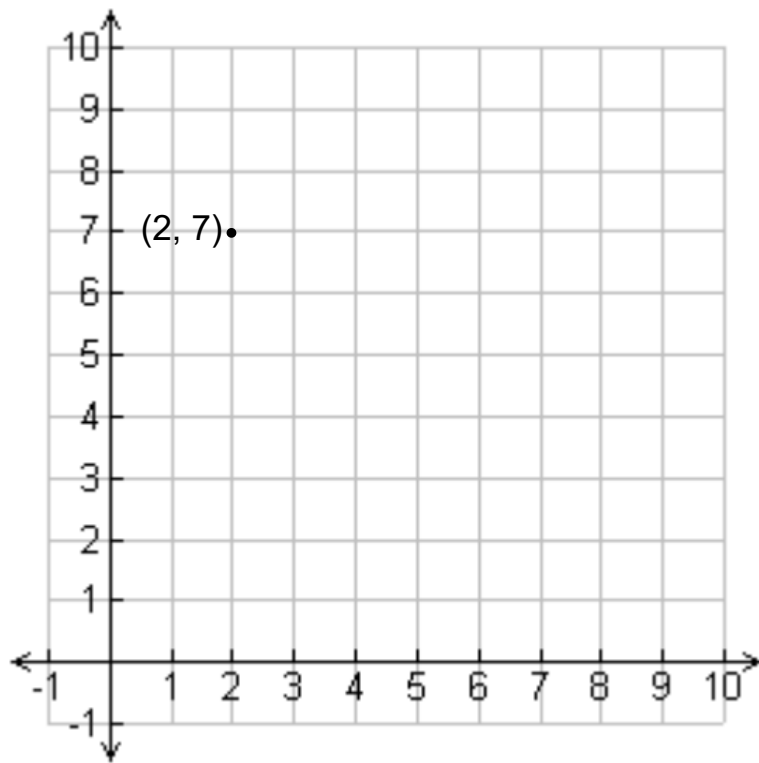
Rectangle (x1, y1, x2, y2)

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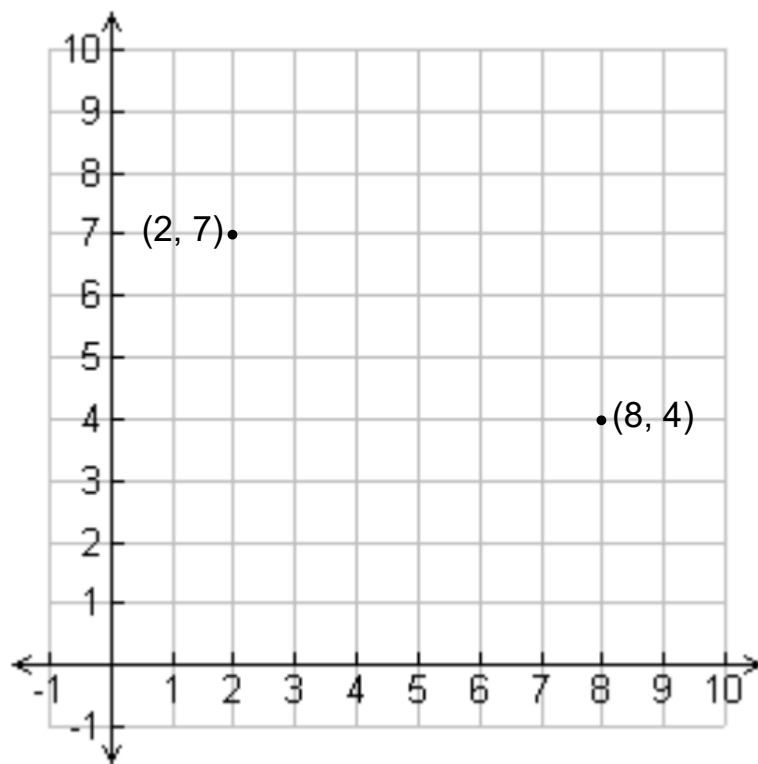
`r = Rectangle (2, 7, 8, 4)`

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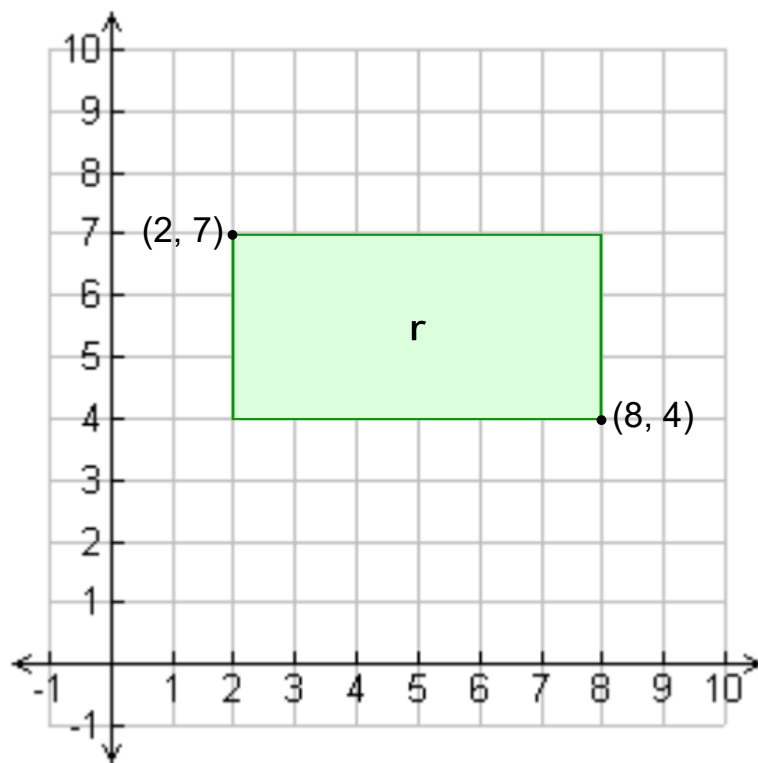
`r = Rectangle (2, 7, 8, 4)`

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```
r = Rectangle (2, 7, 8, 4)
```

5 of 6



```
r = Rectangle (2, 7, 8, 4)
```

6 of 6

Now, let's move on to the next exercise and implement the getter methods of the `Rectangle` class.