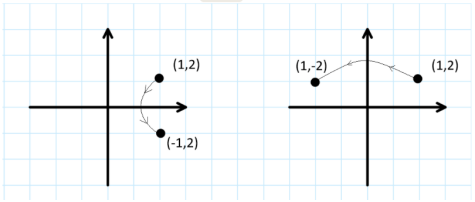
Write a class from scratch

You are a Python developer writing a visualization package. For any element in a visualization, you want to be able to tell the position of the element, how far it is from other elements, and easily implement horizontal or vertical flip. The most basic element of any visualization is a single point. In this exercise, you'll write a class for a point on a plane from scratch.

Instructions

Define the class `Point` that has:

- *Two attributes,* `x` *and* `y` - the coordinates of the point on the plane;
- *A constructor* that accepts two arguments, `x` and `y`, that initialize the corresponding attributes. These arguments should have default value of `0.0`;
- *A method* `distance_to_origin()` that *returns* the distance from the point to the origin. The formula for that is $\sqrt{x^2 + y^2}$.
- *A method* `reflect()`, that reflects the point with respect to the x- or y-axis:
  - accepts one argument `axis`,
  - if `axis="x"`, it sets the `y` (not a typo!) attribute to the negative value of the `y` attribute,
  - if `axis="y"`, it sets the `x` attribute to the negative value of the `x` attribute,
  - for any other value of `axis`, prints an error message.



To check your work, you should be able to run the following code without errors:

```
pt = Point(x=3.0)
pt.reflect("y")
print((pt.x, pt.y))
pt.y = 4.0
print(pt.distance_to_origin())
```

and return the output

```
(-3.0,0.0)
5.0
```