
You should include the output from your test runs in your submissions. You can either write a short script file to test your functions or you can run them from the command line.

- 1) (2 pts) Write your own MATLAB function to compute the area of a circle given the diameter. As a starting point, the first line in your function file should look like

```
function [area] = circle_area(d)
```

Test your program using $d = 1.4$.

- 2) (5 pts) Write a function that will take the x and y -coordinates of a point in the $x - y$ plane as input and return the coordinates of the point in polar coordinates. This function will have two inputs (x and y) and two outputs (a radius and an angle in radians).

Test your function using the points (1,1), (-1,1) and (-3,-4). Be sure to check your answers.