

Computational Physics – HW #2

1. Plot the following three points in the complex plane:

(a) $2 - 2i$

(b) $2(\cos(\pi/6) + i\sin(\pi/6))$

(c) $3e^{i\pi/2}$

2. Put

$$\frac{3+i}{2+i} \tag{1}$$

into $x + iy$ form and $re^{i\theta}$ form.

3. Find all values of x and y (both real) that satisfy

$$(x + iy)^2 = (x - iy)^2. \tag{2}$$