ACMAT118 Spring 2024
Professor Manguba-Glover
Sections 8.5 Homework (HW 15)   Name: _____

Show all work and simplify all answers before circling/boxing them. If you do the problem
incorrectly, or don't show sufficient work, you will be asked to rewrite the problem for full credit.

Due next class. Students who turn assignments in late (or do not attempt a problem) forfeit
their ability to rewrite those problems for credit.

1. Convert the following polar coordinates to rectangular coordinates: $\left(5, \dfrac{\pi}{4}\right)$

2. Convert the following polar coordinates to rectangular coordinates: $\left(-5, \dfrac{\pi}{4}\right)$

3. Convert the following rectangular coordinates to polar coordinates: $(3, \sqrt{3})$

4. Convert the following rectangular coordinates to polar coordinates: $(0, -2)$

5. Convert $2\sin\theta - 3\cos\theta = r$ to a rectangular equation.

6. Convert $y = x^2$ to a polar equation.