

MATH 120A Prep: Complex Numbers I - Polar Form

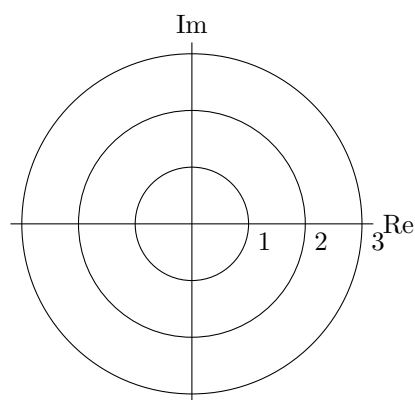
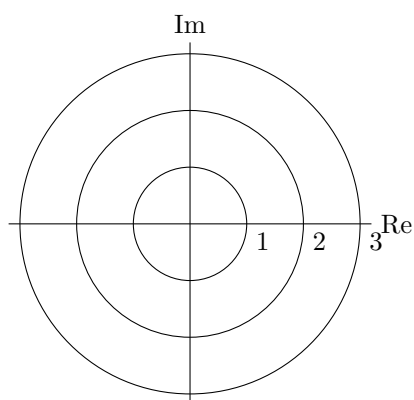
Facts to Know:

Complex Numbers:

- Addition:
- Multiplication:

Polar Form:

- Addition:
- Multiplication:



Examples:

1. Write i and $-i$ in polar form.

2. Based on your answer from Question 1, what happens when we multiply by i ?

3. Use the polar representation of i and -1 to show that $i^2 = -1$.

4. Write $1 - i$ and $\sqrt{3} + i$ in polar form and multiply.