

## Adding and Subtracting Complex Numbers

To add complex numbers, add their real parts and imaginary parts

Real Part

$$(a + bi) + (c + di)$$

Imaginary Part

$$(a + c) + (bi + di)$$

To add complex numbers, add their real parts and imaginary parts

$$(4 + 3i) + (6 + 8i)$$

$$(-4 - 5i) + (2 + 3i)$$

$$(8 + i) + (-5 - i)$$

To subtract complex numbers, subtract their real parts and imaginary parts

$$\begin{array}{c} \text{Real Part} \\ \swarrow \quad \searrow \\ (a + bi) - (c + di) \\ \nwarrow \quad \nearrow \\ \text{Imaginary Part} \\ (a - c) + (bi - di) \end{array}$$

To subtract complex numbers, subtract their real parts and imaginary parts

$$(4 + 3i) - (6 + 8i)$$

$$(-4 - 5i) - (2 + 3i)$$

$$(8 + i) - (-5 - i)$$

To add complex numbers, add their real parts and imaginary parts

$$(a + bi) + (c + di)$$

$$(a + c) + (bi + di)$$

To subtract complex numbers, subtract their real parts and imaginary parts

$$(a + bi) - (c + di)$$

$$(a - c) + (bi - di)$$