

Exercise 22

For the following exercises, perform the indicated operation and express the result as a simplified complex number.

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

Solution

Use the distributive property.

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

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

$$8i + 12i^2$$

$$8i + 12(-1)$$

$$8i - 12$$

$$-12 + 8i$$