

**Exercise 27**

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

$$(-1 + 2i)(-2 + 3i)$$

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**Solution**

Use the distributive property.

$$(-1 + 2i)(-2 + 3i)$$

$$2 - 3i - 4i + 6i^2$$

$$2 - 7i + 6(-1)$$

$$2 - 7i - 6$$

$$-4 - 7i$$