Exercise 29

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

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

Solution

Use the distributive property.

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

$$9 - 12i + 12i - 16i^2$$

$$9 - 16(-1)$$

$$9 + 16$$

$$25$$