

$$(3 + 5i) * (2 + 6i) =$$

$$(3 * 2) + (3 * 6i) + (5i * 2) + (5i * 6i) =$$

$$6 + 18i + 10i + 30i^2 =$$

$$(6 + 30) + (10i + 18i) = (36 + 28i)$$