The two factors are complex conjugates, so their product will result in a real number. Use FOIL.

$(6 + 3i)(6 - 3i) = (6)(6) - (6)(3i) + (3i)(6) - (3i)(3i) =$
$36 - 18i + 18i - 9i^2$

$= 36 - (9)(-1) = 36 + 9 = 45$