Factor:

$(2x+3y)^2 - 10x^2 - 15xy$

Factor means do not expand (unless within a factor in a factored form):

we group:

$\underbrace{(2x+3y)^2}_{\text{group 1}} - \underbrace{10x^2 - 15xy}_{\text{group 2}}$

$= \underbrace{(2x+3y)^2}_{\uparrow} - 5x\underbrace{(2x+3y)}_{\uparrow}$

↑ binomial common factor ↑

$= (2x+3y)[\underbrace{(2x+3y) - 5x}]$

collect like terms within a factor

$= (2x+3y)(2x+3y-5x)$

$= (2x+3y)(-3x+3y)$

Factor means common factor when you can (first/last):

$= (2x+3y)(-3)(x-y)$

$= -3(2x+3y)(x-y)$

↑ monomial factor at the front