Multiple Quantifiers Requires at least two domains and a multivariable predicate. We will restrict our discussion to two independent variables.

$\forall x, \forall y, P(x, y)$ P(x,y) is true for every pair of x and y.
$\forall y, \forall x, P(x, y)$ P(x,y) is true for every pair of x and y.

$\forall x, \exists y, P(x, y)$ For every x there is y for which P(x,y) is true.

$\exists x, \forall y, P(x, y)$ There is an x for which P(x,y) is true for every y.

$\exists x, \exists y, P(x, y)$ There is a pair x, y for which P(x,y) is true
$\exists y, \exists x, P(x, y)$ There is a pair x, y for which P(x,y) is true