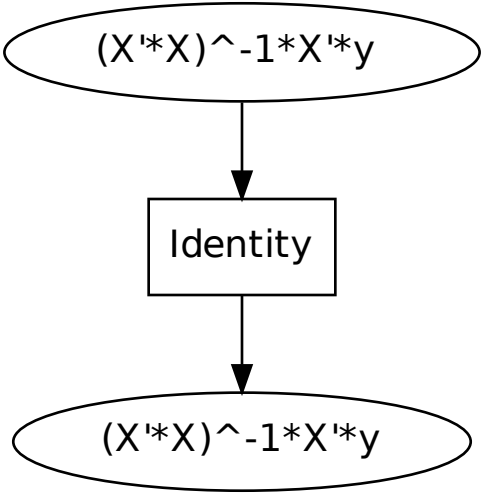


$$(X'X)^{-1}X'y$$


```
graph TD; A([ (X'X)^{-1}X'y ]) --> B[Identity]; B --> C([ (X'X)^{-1}X'y ])
```

A vertical flowchart illustrating a simplification step in the derivation of the Ordinary Least Squares (OLS) estimator. It consists of three vertically aligned components: a top oval, a middle rectangle, and a bottom oval. The top and bottom ovals contain the same mathematical expression, $(X'X)^{-1}X'y$. A downward-pointing arrow connects the top oval to the middle rectangle, which contains the word "Identity". Another downward-pointing arrow connects the middle rectangle to the bottom oval, indicating that the expression in the top oval is simplified to the expression in the bottom oval by applying the identity matrix.

Identity

$$(X'X)^{-1}X'y$$