## Domain, Range and Inverse functions

1. a) Inverse functions, $f^{-1}(x)$, are obtained by $\qquad$ the $x$ and $y$ variables in an equation.

## Complete the table for the graph, $f(x)$ :

| $x$ | 0 | 1 | 2 |
| :---: | :---: | :---: | :---: |
| $f(x)$ | -4 | -3 |  |

To find the inverse function, $f^{-1}(x)$, switch the $\qquad$ and $\qquad$ co-ordinates and plot them on the graph (use table below if it helps).

| $x$ |  |  |  |
| :---: | :--- | :--- | :--- |
| $f^{-1}(x)$ |  |  |  |


b) How could you have graphed the function faster? (Hint: which line would you draw?)
c) The domain is the possible values for $\qquad$ . Write the domain for $f(x)$, then for $f^{-1}(x)$
d) The range is the possible values for $\qquad$ . Write the range for $f(x)$, then for $f^{-1}(x)$
e) Why is it not possible to find the inverse function for $g(x)$ below?
f) State the domain and range for $g(x)$


