

* Inverse functions:

→ if $f(x)$ is notation of original function, its inverse is written as $f^{-1}(x)$.

→ The inverse is the reflection of the original in the line $y = x$.

→ The x -and- y -values of the coordinates 'swap'.

∴ Domain of original is range of inverse AND range of original is domain of inverse.

→ How to get equation of the inverse function?

→ swap the x -and- y in original equation

→ Get ' y ' alone.

{use the theory above and
example below to do
ex. 4 page 45 in
textbook. nr's 1, b+c
nr 2 }

* Determine if following sets represent
a function and its inverse.

$$f = \{(5;2), (8;5), (11;8)\}$$

$$g = \{(2;5), (5;8), (8;11)\}$$

* The inverse of a straight line

Examples:

1) a) Determine the inverse of
 $f(x) = 2x - 8$

b) Sketch both $f(x)$ and $f'(x)$ on the same set of axes. Indicate all intercepts and symmetry lines.