

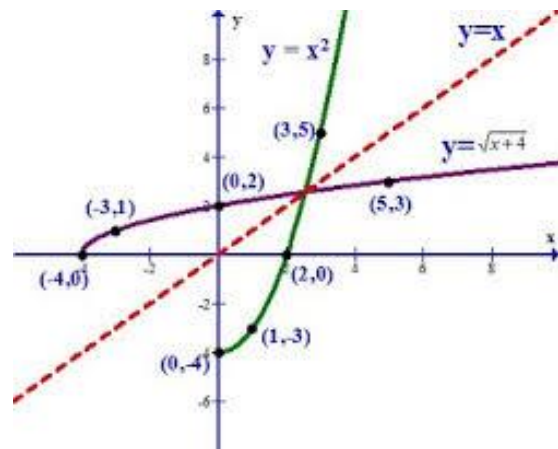
## INVERSE FUNCTIONS:

### If given points:

Switch the  $x$  and  $y$  for every point

### If given the graph:

1. Switch the  $x$  and  $y$  for every point
2. Plot the new points



### If given the equation $f(x)$ :

1. Replace  $f(x)$  with  $y$
2. Replace all  $x$ 's with  $y$ 's and all  $y$ 's with  $x$ 's
3. Isolate  $y$
4. Replace  $y$  with  $f^{-1}(x)$

### To verify inverses:

1. Substitute  $f^{-1}(x)$  into the  $x$ 's of  $f(x)$  and simplify.
2. Substitute  $f(x)$  into the  $x$ 's of  $f^{-1}(x)$  and simplify.
3. If both cases simplify to  $= x$ , then the equations are inverses of each other