

WARM UP: State the domain and range for $y = -\sqrt{x+2} - 4$

Domain =

Range =

Inverse Functions

1. Consider the following sets.

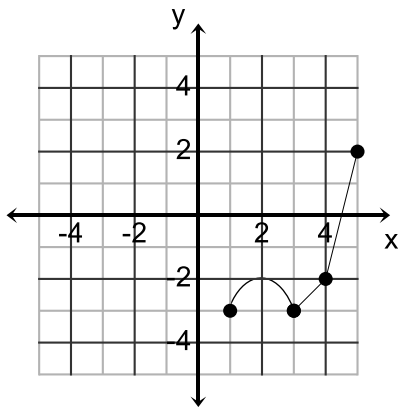
$$E = \{(0,1), (1,2), (2,3), (3,4)\}$$

$$F = \{(1,0), (2,1), (3,2), (4,3)\}$$

E and F are considered to be _____.

An inverse function is said to “reverse” the processes of another function. For a function $f(x)$, the value of x would be input, and the value of y would result. For the inverse of $f(x)$, the value of y would be input, and the value of x would result.

The inverse of a function has a set of ordered pairs that are obtained by interchanging the coordinates of ordered pairs of the function.



Notation

The inverse of $y = g(x)$ is written as _____.

Note this is not an exponent.

It is only used if _____.

The inverse of $(7, -8)$ is _____.

The inverse of $f(3)=9$ is _____.

2. Method for finding the equation of an inverse.

a. $f(x) = 2x + 1$

b. $p(x) = \sqrt{x} + 3$