U3D6 MCR 3UI   *Inverses Continued….*
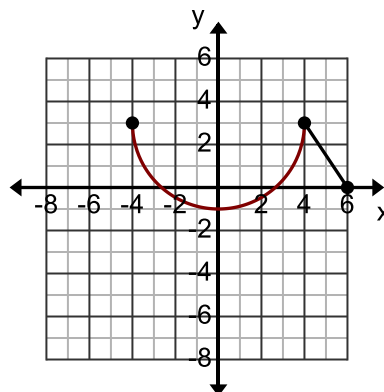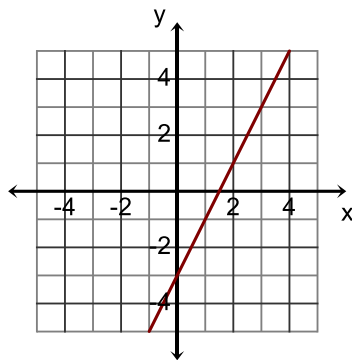
Warm Up: A) State the inverse of P = {(2,3), (4,5),(9,-2)}
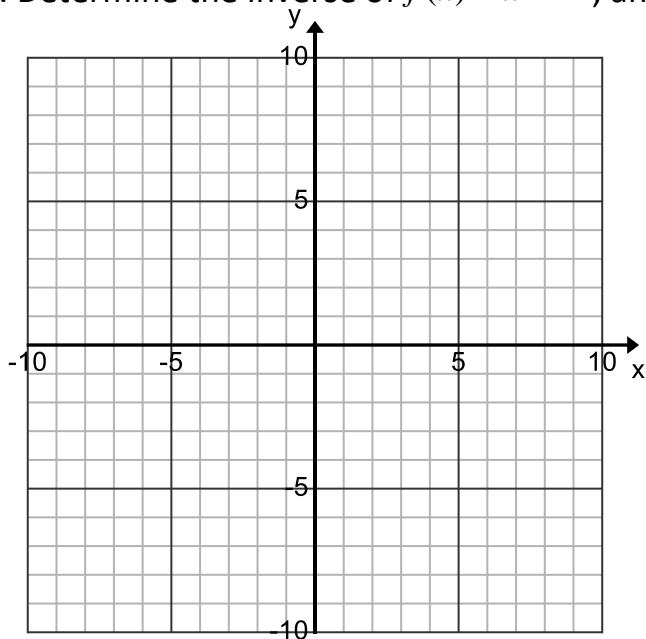
B) Graph the inverse of each of the following and identify domain and range of the original and the inverse graph:

Inverses (continued):

Method for finding the equation of an inverse (continued)

1. Determine the inverse of $f(x) = x^2 - 2$, and graph both functions.

f(x) is a _____
that opens _____
and has a vertex of (___, ___).

$f^{-1}(x) \implies$

f(x)

D: {   }

R: {   }

State the Domain and Range of each
$f^{-1}(x)$

D: {   }

R: {   }

Is $f^{-1}(x)$ a function?

Is it possible to make $f^{-1}(x)$ a function?

2. Determine the equation of the inverse for each of the following functions and identify if the inverse is a function:
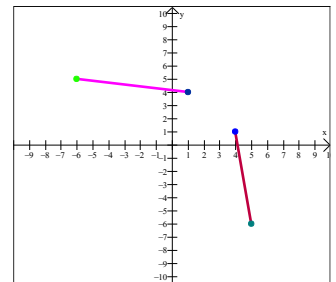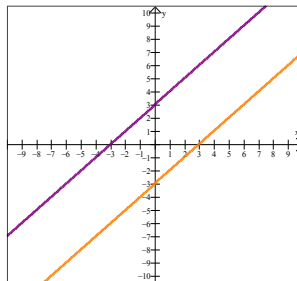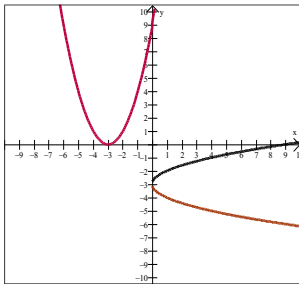
a. $q(x) = \dfrac{1}{x-2}$

b. $f(x) = 5x^2 - 2$

c. $g(x) = 3x^2 - 6x + 11$

Reflective Property for Inverses

The following are inverses of each other.

The graph of $y = f^{-1}(x)$ is the reflection of the graph $y = f(x)$ in the line _____.

Note: the inverse in the first graph is not a function due to the

The cost of a pizza is $8 plus $1.25 per topping.

a) Write an equation of Cost as a function of number of toppings.

b) State the domain and range.

c) Find the inverse, and explain its meaning. (On reverse)