

Algebra 2

5-07 Inverse of a Function

Properties of Inverses

- x and y values are _____
- Graph is _____ over the line _____
- You can use the Horizontal Line test to determine if the _____ of a function is also a function.
 - If a horizontal line can touch a graph _____, then the inverse is _____ a function.

Definition of inverses

- Two functions are inverses if and only if _____ and _____

Verify that $f(x) = 6 - 2x$ and $g(x) = \frac{6-x}{2}$ are inverses.

Finding inverses

- Inverses switch the x and y _____
1. _____ x and y and _____ for y .

Find the inverse

$$y = 2x + 7$$

$$f(x) = x^4 + 2, x \leq 0$$

The power (in watts) of a lightbulb that has a resistance of 240 ohms is represented by $f(x) = 240x^2$, where x is the electric current of a lightbulb in amperes. Find and interpret $f^{-1}(60)$.