

Section 3.5: Inverse Functions Written Homework

Remember: Any submissions to my email after 11:59pm will NOT be accepted and will result in a grade of a 0. Homework must be presented in an orderly manner with the problems in order, running in a single column down the page. Homework also must be NEAT and legible: I will be the judge as to what is neat; just because you can read it doesn't mean that I can decipher it. All final answers must be circled to receive credit. Any algebraic answer not circled or boxed will not be graded. Pictures/graphs do not need to be circled or boxed. Written homework that does not follow these requirements will be recorded as a grade of a zero.

ALSO EVERYONE'S written homework will need to be turned in as a PDF! NO OTHER FILE TYPES WILL BE GRADED!!!!!!!

Directions:

a) Find the inverse, $f^{-1}(x)$, for the following functions

b) Verify that your inverse is correct by showing that $f(f^{-1}(x)) = x$ and $f^{-1}(f(x)) = x$

1) $f(x) = 3x - 1$

2) $f(x) = \frac{4}{x} + 9$

3) $f(x) = \frac{1}{2x + 6}$

4) $f(x) = \frac{2x - 3}{x + 1}$

5) $f(x) = (x - 1)^2, x \geq 1$