

Date:

Section:

Objective:

Steps for finding the inverse:

1. Flip-flop the x and y
2. Solve for y

EXAMPLES: Find the inverse.

1. $f(x) = \log_8(2x + 1) - 6$
2. $f(x) = 2 \cdot 3^{x+1} - 4$
3. $f(x) = \frac{e^{\frac{5x-1}{2}} + 8}{3}$

Steps for "U" substitution:

1. Set u equal to the middle term's variable
2. Square step #1 to find u^2
3. Replace u and u^2 in the original equation for the variables
4. Factor
5. Solve for u
6. Substitute x back in and solve for x
7. Check for extraneous solutions

EXAMPLES: Solve for the variable.

1. $e^{6x} + 4e^{3x} - 32 = 0$
2. $2 \cdot 6^{4x} - 6^{2x} - 6 = 0$