

1. [12 points] In each of the following equations, solve for all possible values of x . Be sure to show your work and write your final answer in the blank in **exact** form. If there are no solutions, write “no solutions” in the blank.

a. [4 points] $\ln(2e^x - 5) = x$.

$x =$ _____

b. [4 points] $e^{x+8} = 2^{7x-6}$.

$x =$ _____

c. [4 points] $\log(2x^2 - 1) = 0$.

$x =$ _____