

2. [11 points] Solve all the following equations algebraically. Your answers must be written in **exact** form. Show all your work to receive full credit.

a. [3 points]  $10^{3\log(x)} = 7$

$x =$ \_\_\_\_\_.

b. [4 points]  $\log(27y) - \log(2y + 1) = 1$

$y =$ \_\_\_\_\_.

c. [4 points]  $z \ln(7z + 17) = 0$

$z =$ \_\_\_\_\_.