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] \(10^{3 \log(x)} = 7\)

   \[ x = \text{______________}. \]

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

   \[ y = \text{______________}. \]

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

   \[ z = \text{______________}. \]