2. [12 points] Solve each of the equations below.
  Show your work step-by-step and give the **exact solutions** *in the answer blanks provided.*

  a. [3 points] $4(3.2)^t = 7$

  Answer: $t =$ _____

  b. [3 points] $3e^{\ln(x+2)} = 8$

  Answer: $x =$ _____

  c. [3 points] $e^{m+5} = 6e^{-3m}$

  Answer: $m =$ _____

  d. [3 points] $\ln(y+3) - \ln(1-y) = \ln(6)$

  Answer: $y =$ _____