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:** $t = \phantom{1}$

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

   **Answer:** $x = \phantom{1}$

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

   **Answer:** $m = \phantom{1}$

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

   **Answer:** $y = \phantom{1}$