1. [12 points] Solve the following equations for the variable, showing all your work. Write your answers in **exact** form in the blank provided.

   a. [4 points] $\ln(11 \cdot e^p) = -14p + 2017$

$$p = \underline{\hspace{8cm}}$$

   b. [4 points] $\log(10^x + 1) = \pi.$

$$x = \underline{\hspace{8cm}}$$

   c. [4 points] $e^{t+5} = 10^t.$

$$t = \underline{\hspace{8cm}}$$