Solve the following for x algebraically. Show calculator ready answer and decimal answer to three decimal places.

1.
$$\log_2(x+3) - \log_2 x = 5$$
 2. $5^{2x+1} = 2^{1-x}$

$$2. 5^{2x+1} = 2^{1-x}$$

3.
$$4^{2x} - 2 \cdot 4^x - 8 = 0$$