1. Solve for x (your answer can be in terms of logarithms) :
$$200e^{.5x} = 400$$

2. The number of users of a new website is doubling on average every month. Once they get 25,000 users they will be able to get more funding. How long will it take to get to 25,000 users if the number of users double consistently every month? Give an estimate as well as an exact answer in terms of logarithms.