(1)[5 points] Solve for x:

$$e^x + e^{-x} = 5$$

(2)[5 points] Solve for x:

$$\log_4(x+3) + \log_4(x-3) = 2$$

(3)[5 points] In 2001 the world population was 6.2 billion and growing at an exponential growth rate of 1.2% per year. The resulting population model is $P(t) = 6.2e^{0.012t}$ where t measures years since 2001 and $P(t)$ is in billions.

(i) When will the population be 8 billion?

(ii) What is the doubling time of the population?