

(C2-7.3) Name:

### **Homework Questions 3 – Growth and Decay**

1. A new car is purchased for £12999. Each year it depreciates in value and it is only worth 85% of the previous year's value. The owner decides to keep the car until its value goes below £5000. After how many years will the owner get rid of the car.

2. What is the first term in the geometric series  $3, 3.6, 4.32, 5.184$  to exceed 50

3. An oak tree is planted in 2001. If the tree is initially 2m tall and it is expected to grow at a rate of 15% per year. In what year will the tree reach 15m tall.