V.D. 3.5.1

[Compound Interest]

(For Question 1-4)

John thinks of investing his retirement into a saving's account. The saving's account compound monthly. What is the minimum APR(to the thousandth percent) he should negotiate with the bank when he is about to deposit his retirement if

1. He would like to see the value tripled in 25 years?	4.403%
2. He would like to see the value becomes 150% of its current value in 10 years ?	4.062%
3. He would like to see the value doubled in 40 years?	1.734%
4. He would like to see the value becomes 250% of its current value in 20 years?	4.590%

(For Question 5-8)

If a banker offers John continuous compounding, when will the investment reach its goal if following are the rates of different saving account that offers the option? (Answer in the nearest whole year)

5. APR = 2%, goal: triples the value	55 years
6. APR = 3%, goal: reach 150% of the value	14 years
7. APR = 2.5% goal: doubles the value	28 years
8. APR =1.25% goal: reach 250% of the value	74 years