Class Discussion

Unit 3 Topic 5 Applications

Compund Interest model for continuous compounding

From finite frequency of

$$A = P\left(1 + \frac{r}{n}\right)^{nt}$$ to

Infinite frequency

$$A = Pe^{rt}$$

Example 1:

A saving's account compounds monthly. If Jonah wants to triple his deposit in 15 years. What is the minimum APR Jonah should negotiate with the banker?

Example 2:

Similar to Exmaple 1, If the account now offers continuos compounding, How long will it take any deposit to triple if APR = 2.5%